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A Tax Professor's Guide to Formative Assessment

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A TAX PROFESSOR'S GUIDE TO FORMATIVE ASSESSMENT

by

Heather M. Field*

ABSTRACT

The ABA Standards now require formative assessment to be integrated into law school courses, and there is extensive literature, both in legal education and education more generally, about the goals and methods for formative assessment. This Article makes the key insights of that literature accessible and actionable for professors teaching tax courses. This crash course on formative assessment is intended to enable tax professors to integrate formative assessment into their classrooms effectively and efficiently without having to become legal pedagogy scholars in addition to being tax law scholars. The formative assessment techniques discussed herein range from those that require relatively little time and effort to those that may be particularly impactful but that require additional time and work. This Article also discusses strategies for reducing the burden of even the work-intensive approaches. Ultimately, by using numerous examples from basic federal income tax, corporate tax, and partnership tax courses, I hope to make it easier for tax professors to figure out which approach(es) to formative

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assessment is(are) likely to work best for their students, make it easier for tax professors to implement their chosen formative assessment techniques in their classrooms, and make it easier for tax professors to achieve their goals for their classes as successfully as possible, all at as little cost as possible.

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I. INTRODUCTION

Law professors across the country have been asked to integrate more formative assessment into their courses. With the changes to the ABA Standards,¹ use of formative assessment is now required at all accredited law schools.² Some professors have been using formative assessment techniques in their classrooms for years, and thus may welcome

1. See AM. BAR ASS'N SECTION OF LEGAL EDUC. & ADMISSIONS TO THE BAR, EXPLANATION OF CHANGES 6–11 (2014), https://www.americanbar.org/content/dam/aba/administrative/legal_education_and_admissions_to_the_bar/council_reports_and_resolutions/201408_explanation_changes.pdf [hereinafter ABA EXPLANATION].

2. AM. BAR ASS'N, STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS 2018–19, Standard 314 (2018), https://www.americanbar.org/content/dam/aba/publications/misc/legal_education/Standards/2018-2019ABAStandardsforApprovalofLawSchools/2018-2019-aba-standards-rules-approval-law-schools-final.pdf [hereinafter ABA STANDARDS] (Standard 314 is “Assessment of Student Learning”).

this change. Other professors, who may be integrating formative assessment into their classrooms merely because they have been told to do so, may have concerns about this shift: Concerns that more formative assessment steals precious classroom minutes from coverage of necessary substantive and skills instruction. Concerns that professors are already juggling many demands and that integrating more formative assessment into courses requires a significant amount of work and time, thereby reducing the time available for research, service, and other pressing responsibilities. Concerns that the undertaking has little or no value and is primarily about complying with burdensome and perfunctory administrative requirements. And concerns about whether, even if there is real value that comes from formative assessment, the benefits justify the effort. Professors also continue to have questions about exactly what formative assessment entails, about how to integrate it into their classrooms effectively, about whether what they are doing actually counts as formative assessment, and about whether their current efforts are enough. These are all reasonable and legitimately held worries about the implications of trying to comply with the ABA Standards regarding formative assessment.³

For tax professors, there is good news and bad news about the ABA's formative assessment requirement. The good news is that tax professors may have a head start on formative assessment as

3. See, e.g., Olympia Duhart, *The "F" Word: The Top Five Complaints (and Solutions) About Formative Assessment*, 67 J. LEGAL ED. 531, 531–552 (2018); Steven I. Friedland, *Rescuing Pluto from the Cold: Creating an Assessment-Centered Legal Education*, 67 J. LEGAL ED. 592, 592–93, 600–02 (2018) (discussing law professors' objections to incorporation of more assessment, including the concern that investment of one's time in teaching, including through integrating more formative assessment into the classroom, yields little, if any, professional reward). At the ABA Section on Taxation's May 2017 Meeting, where I spoke on a panel about the new ABA Standards, I surveyed attendees at the program about their concerns related to the new formative assessment requirements. Half of the attendees who voted indicated that their biggest concern was the amount of work and time that adding formative assessment will require. Concerns about the impact on instructional time and coverage and concerns about *how* to integrate formative assessment were the next most common primary concerns, with 20% of respondents each. Fewer respondents (10%) were primarily concerned about the value of adding more formative assessment.

compared to professors in some other disciplines because many tax law classes rely on the problem method, at least to some extent. As explained in more detail below, the problem method itself provides some formative assessment and provides a good foundation for the integration of more, and more effective, formative assessment into the tax classroom. But the bad news is that, even for tax professors, thoughtful, effective, and efficient use of formative assessment is not necessarily easy.

There are, however, strategies that tax professors can use, with relatively little additional time and effort, to make their current formative assessment practices more effective and to add additional formative assessment that increases student learning and complies with the ABA Standards.⁴ And there are strategies through which tax professors can integrate even more extensive formative assessment if they are willing to invest more time and energy. Further, there are ways to do all of these things in a manner that is as efficient as possible, that advances student learning as much as possible, and that enables the professor to achieve *her* goals for the class as effectively as possible. Thus, this Article's goal is to help tax professors integrate

4. This Article proceeds from the premise that tax (and other) law professors must integrate formative assessment into their classrooms to comply with the ABA Standards, and this Article seeks to make tax professors' efforts to comply more effective and less burdensome. However, even with the suggestions made herein and elsewhere, adding formative assessment does require time and effort. Thus, the formative assessment endeavor may raise collateral questions about what is expected of faculty across a wide array of functions, especially as expectations of faculty members have expanded, at least at some schools, to include more involvement in bar passage efforts, more assistance with post-grad employment outcomes, and more support for students in general. There could be some synergies between those efforts (particularly bar passage efforts) and the formative assessment efforts. However, depending on a school's expectations about the level of faculty involvement in these other issues, the school's ongoing expectations about research output, and the school's desired level of formative assessment, there may be an opportunity (and even a need) for a faculty-wide discussion with the administration about the school's institutional priorities and about how faculty members should allocate their time.

formative assessment into their classrooms in a way that responds to the concerns and questions mentioned above.⁵

5. This Article focuses exclusively on formative assessment techniques that can be implemented by an individual instructor in an individual doctrinal course to assist with the achievement of the student learning outcomes for that class (i.e., compliance with ABA Standard 314 within individual courses). Course-level formative assessment is, of course, related to institution-level and program-level learning outcomes and assessment. *Cf.* LINDA SUSKIE, *ASSESSING STUDENT LEARNING: A COMMON SENSE GUIDE* 16–21 (3d ed. 2018) (discussing the different settings for assessment); Janet W. Fisher, *Putting Students at the Center of Legal Education: How an Emphasis on Outcome Measures in the ABA Standards for Approval of Law Schools Might Transform the Educational Experience of Law Students*, 35 S. ILL. U. L.J. 225, 229–39 (2011) (discussing institutional level, program level, and course level assessments). However, issues relating to the development of student learning outcomes (i.e., ABA Standard 302) and the assessment of law schools' programs of study and of student progress toward a program's desired learning outcomes (i.e., ABA Standard 315) are outside the scope of this Article. *See* ABA STANDARDS, *supra* note 2, Standard 302 ("Learning Outcomes") & Standard 315 ("Evaluation of Program of Legal Education, Learning Outcomes, and Assessment Methods"). There are many resources to assist law school administrators and faculty members interested in these topics. *See, e.g.*, GREGORY S. MUNRO, *OUTCOMES ASSESSMENT FOR LAW SCHOOLS* 81–103 (2000) (discussing institutional/program-level outcomes and assessment in law schools generally, without reference to the new ABA Standards, which were adopted many years after publication of this book); LORI E. SHAW & VICTORIA L. VANZANDT, *STUDENT LEARNING OUTCOMES AND LAW SCHOOL ASSESSMENT: A PRACTICAL GUIDE TO MEASURING INSTITUTIONAL EFFECTIVENESS* (2015) (focusing primarily on institution/program-level learning outcomes and assessment thereof in law schools); SUSKIE, *supra*, chs. 7–11 (same, but in higher education more generally); BARBARA E. WALVOORD, *ASSESSMENT CLEAR AND SIMPLE: A PRACTICAL GUIDE FOR INSTITUTIONS, DEPARTMENTS, AND GENERAL EDUCATION* (2d ed. 2010) (same); Charles P. Cercone & Adam Lamparello, *Assessing a Law School's Program of Legal Education to Comply with the American Bar Association's Revised Standards and Maximize Student Attainment of Core Lawyering Competencies*, 86 UMKC L. REV. 37 (2017); Andrea A. Curcio, *A Simple Low-Cost Institutional Learning-Outcomes Assessment Process*, 67 J. LEGAL EDUC. 489 (2018); Susan Hanley Duncan, *They're Back! The New Accreditation Standards Coming to a Law School Near You—A 2018 Update, Guide to Compliance, and Dean's Role in Implementing*, 67 J. LEGAL EDUC. 462 (2018).

To be clear, I do not have all of the answers about formative assessment for tax classes or otherwise. There is extensive literature, both in legal education⁶ and education more generally,⁷ about formative assessment, and this Article could not possibly rehash all of it.

6. See, e.g., GERALD F. HESS ET AL., *TECHNIQUES FOR TEACHING LAW 2*, at 261–85 (2011) (first version, GERALD F. HESS & STEVEN FRIEDLAND, *TECHNIQUES FOR TEACHING LAW*, was published in 1999); MUNRO, *supra* note 5, chs. 10–11; MICHAEL HUNTER SCHWARTZ ET AL., *TEACHING LAW BY DESIGN: ENGAGING STUDENTS FROM THE SYLLABUS TO THE FINAL EXAM* 18–19, 150–74, 195, 202–03, 208–10 (2d ed. 2017) (first edition published in 2009); Elizabeth M. Bloom, *A Law School Game Changer: (Trans)Formative Feedback*, 41 OHIO N.U. L. REV. 227 (2015); Olympia Duhart, “It’s Not for a Grade”: *The Rewards and Risks of Low-Risk Assessment in the High-Stakes Law School Classroom*, 7 ELON L. REV. 491 (2015); Barbara Glesner Fines, *Outcomes Assessment for Improving Student Learning*, in *BUILDING ON BEST PRACTICES: TRANSFORMING LEGAL EDUCATION IN A CHANGING WORLD* 94, 97–99 (Deborah Maranville et al. eds., 2015); Richard Johnstone et al., *Improving Criteria and Feedback in Student Assessment in Law*, 7 LEGAL EDUC. REV. 267 (1996) (Australian law schools); Ruth Jones, *Assessment and Legal Education: What Is Assessment, and What the *# Does It Have to Do with the Challenges Facing Legal Education?*, 45 MCGEORGE L. REV. 85 (2013); Rogelio A. Lasso, *Is Our Students Learning? Using Assessments to Measure and Improve Law School Learning and Performance*, 15 BARRY L. REV. 73 (2010); Anthony Niedwiecki, *Lawyers and Learning: A Metacognitive Approach to Legal Education*, 13 WIDENER L. REV. 33 (2006) [hereinafter Niedwiecki, *Lawyers & Learning*]; 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 (2012) [hereinafter Niedwiecki, *Teaching*]; 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 (2013).

7. See, e.g., THOMAS A. ANGELO & K. PATRICIA CROSS, *CLASSROOM ASSESSMENT TECHNIQUES: A HANDBOOK FOR COLLEGE TEACHERS* (2d ed. 1993); TRUDY W. BANTA & CATHERINE A. PALOMBA, *ASSESSMENT ESSENTIALS: PLANNING, IMPLEMENTING, AND IMPROVING ASSESSMENT IN HIGHER EDUCATION* (2d ed. 2015); *HOW PEOPLE LEARN: BRAIN, MIND, EXPERIENCE, AND SCHOOL* 24–25, 139–44 (John D. Bransford et al. eds., expanded ed. 2000); SUSKIE, *supra* note 5, chs. 3–6, 12, 13, & 16; Paul Black & Dylan Wiliam, *Assessment and Classroom Learning*, 5 ASSESSMENT EDUC.: PRINCIPLES, POL’Y & PRAC. 7 (1998); Ian Clark, *Formative Assessment: Assessment Is for Self-Regulated Learning*, 24 EDUC. PSYCHOL. REV. 205 (2012); D. Royce Sadler, *Formative Assessment and the Design of Instructional Systems*, 18 INSTRUCTIONAL SCI. 119 (1989).

However, this Article seeks to make the key insights of that literature accessible and actionable for professors teaching tax, so that they can integrate formative assessment into their classrooms effectively without having to become legal pedagogy scholars in addition to being tax law scholars.⁸ To do so, I build on the lessons from the literature, and I draw on more than a dozen years of experience teaching a variety of tax law classes and using formative assessment techniques therein.⁹ By focusing on the specific context of tax law classes, this Article identifies techniques and tips that are likely to be particularly useful for students' learning in tax courses.¹⁰ And by using examples from federal income tax ("FIT"), corporate tax, and partnership tax courses, I hope to show tax professors examples of concrete things they can do for formative assessment, thereby making it easier for tax professors to figure out which approach(es) to formative assessment is (are) most likely to work for them in their classes and making those formative assessment techniques a little bit easier to use. At the very least,

8. For those tax law scholars who are inspired to learn more about learning theory, I hope the resources cited in the footnotes are helpful.

9. I also am fortunate to have been immersed in teaching for much of my life. My mother was a teacher for most of her career, and I grew up helping her in her classrooms. She taught in a variety of contexts, from elementary school to college-level teaching credential programs, where, as a reading specialist, she taught future teachers how to teach students to read. Many of the aspects of educational theory that are only now being integrated into the law school accreditation standards (e.g., learning objectives and formative assessment) were foundational parts of the teaching that I observed her doing. When I started teaching, these things became part of my approach to teaching because I learned from her. Over the past decade, I learned more about the theory behind these approaches and put more technical vocabulary to the types of things she did in her classrooms and that I did, at least to some degree, in mine. In recent years, I have tried to hone and increase my use of formative assessment techniques, especially given my institution's efforts to comply with WASC and then ABA accreditation standards, my institution's efforts to increase student learning as part of trying to increase bar pass rates, and my prior role in my institution's leadership.

10. Cf. Kris Franklin, *Do We Need Subject Matter-Specific Pedagogies?*, 65 J. LEGAL EDUC. 839 (2016) (encouraging faculty within subject areas to consider teaching methods that respond to the challenges and other aspects of particular subject areas).

I hope that this Article gives tax professors a crash course on formative assessment.¹¹

There are, of course, formative assessment techniques and strategies for making those techniques effective beyond those discussed in this Article, and readers of this Article may have implemented additional techniques in their classrooms. Thus, I hope that others will use their creativity and experiences to build on what they do in their own classrooms, on what I have done herein, and on what others have done elsewhere.

This Article proceeds as follows. Part II briefly summarizes the changes to the ABA Standards regarding assessment of student learning and explains the concept of formative assessment. In particular, Part II explains that formative assessment is more than just the provision of feedback; it involves feedback *loops* for both the student and professor, where action is taken in response to feedback provided. This Part also explains the concepts of metacognition and self-regulated learning, contributions to which are important goals of formative assessment. Part III provides a few words of encouragement for tax professors grappling with the challenge of integrating formative assessment into their classrooms, including suggestions about how to approach this effort and how to make this effort useful for advancing whatever the *professor's* goals are for her course. Part IV discusses how professors can build from the problem method, if they already use that approach, and how professors can, more generally, use multiple choice questions to provide effective formative feedback. Then, this Part discusses the use of other objective questions (e.g., true/false and multiple select questions), minute papers, and vocabulary/concepts lists, all of which are additional strategies for formative assessment that require relatively little of the professor's time and effort, whether before, in, or after class. Part V describes techniques for more extensive formative assessment, including in-class exercises, additional review problems for students, writing assignments, and midterms. These techniques often require additional time and effort, but this Part also provides some guidance about how to mitigate these additional burdens. Part VI concludes.

11. Because this Article provides a survey of formative assessment techniques, this Article may not provide enough detail on particular techniques for some instructors, but I encourage those instructors to refer to the cited resources for more information.

Readers who are familiar with the recent changes to the ABA Standards and the goals of formative assessment may wish to skip Part II and go directly to Part III. Readers who are highly skeptical of these changes and merely want to know how to do a minimal amount of formative assessment to comply with the ABA rules and their deans' mandates may wish to go directly to Part IV, which discusses techniques, although I hope these readers will ultimately return to Parts II and III to get a more comprehensive understanding about formative assessment. Readers who are in the process of familiarizing themselves with the changes and the concept of formative assessment are encouraged to continue with the Article as written.

II. BACKGROUND ON NEW ABA STANDARD 314 & FORMATIVE ASSESSMENT

Over the past twenty years or so, commentators increasingly called for the integration of formative assessment into the law school classroom.¹²

12. See *supra* note 6 (collecting sources, mostly written in the past decade, discussing and endorsing the use of classroom formative assessment in U.S. legal education). This discussion grew during the previous decade. See, e.g., ROY STUCKEY ET AL., BEST PRACTICES FOR LEGAL EDUCATION: A VISION AND A ROAD MAP 125–28, 255–59, 276–78, 280 (2007) [hereinafter BEST PRACTICES]; WILLIAM M. SULLIVAN ET AL., CARNEGIE FOUND. FOR THE ADVANCEMENT OF TEACHING, EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW 84–85, 164–67, 171–73, 188–89 (2007) [hereinafter CARNEGIE REPORT] (calling for, and explaining the benefits of, increased use of formative assessment); Paul L. Caron & Rafael Gely, *Taking Back the Law School Classroom: Using Technology to Foster Active Student Learning*, 54 J. LEGAL EDUC. 551, 563–65 (2003) (discussing active learning methods for providing both summative and formative feedback to students to help students evaluate their progress and improve learning); Kristin B. Gerdy, *Teacher, Coach, Cheerleader, and Judge: Promoting Learning through Learner-Centered Assessment*, 94 LAW LIBR. J. 59 (2002) (implicitly supporting the concept of formative assessment by advocating for learner-centered assessment in which feedback is provided to help students improve); Gerald F. Hess, *Principle 3: Good Practice Encourages Active Learning*, 49 J. LEGAL EDUC. 401, 403 (1999) (implying support for formative assessment by advocating for more active learning, which provides students with feedback about their learning and enables them to integrate that information into their future learning); Terri LeClercq, *Principle 4:*

Only recently, however, as a result of the changes to the ABA Standards, must law professors grapple with this task.

To provide background for the formative assessment techniques discussed in Parts IV and V, this Part briefly summarizes ABA Standard 314 and the related changes to the ABA Standards and then explains the concept and goals of formative assessment.

A. ABA Standard 314 & Related Changes to the ABA Standards

After a comprehensive review of the ABA Standards applicable to law schools, the ABA overhauled the accreditation standards in 2014¹³ to,

Good Practice Gives Prompt Feedback, 49 J. LEGAL EDUC. 418 (1999); see also AM. BAR ASS'N SECTION OF LEGAL EDUC. & ADMISSIONS TO THE BAR, REPORT OF THE OUTCOME MEASURES COMMITTEE 54–64 (2008), https://www.americanbar.org/content/dam/aba/administrative/legal_education_and_admissions_to_the_bar/reports/2008_outcome_measures_committee_final_report.pdf [hereinafter ABA OUTCOME MEASURES] (endorsing a shift toward more of an outcomes-based approach in law schools); Michael Hunter Schwartz, *Teaching Law by Design: How Learning Theory and Instructional Design Can Inform and Reform Law Teaching*, 38 SAN DIEGO L. REV. 347, 355–56, 370–71, 415–18 (2001) (drawing on instructional design theory to recommend, among other things, that professors provide more feedback to students to help them learn and assess the efficacy of their own learning). The earlier literature about formative assessment in U.S. law school classrooms is very limited, although the concepts inherent in the theory of formative assessment have informed legal writing instruction and clinical legal education for longer. One notable example of this is GARY BELLOW & BEA MOULTON, *THE LAWYERING PROCESS: MATERIALS FOR CLINICAL INSTRUCTION IN ADVOCACY* (1978), which, while not explicitly about “formative assessment” per se, incorporates self-reflective learning processes that are central to formative assessment. See John M.A. DiPippa & Martha M. Peters, *The Lawyering Process: An Example of Metacognition at Its Best*, 10 CLINICAL L. REV. 311, 312–13 (2003) (discussing the value and impact of Bellow and Moulton’s book).

13. See *Transition to and Implementation of the New Standards and Rules of Procedure for Approval of Law Schools*, AM. BAR ASS'N 1 (Aug. 13, 2014), https://www.americanbar.org/content/dam/aba/administrative/legal_education_and_admissions_to_the_bar/governancedocuments/2014_august_transition_and_implementation_of_new_aba_standards_and_rules.pdf [hereinafter *ABA Transition*] (briefly recounting the process that led to these changes).

among other things, “effect a reduction in reliance on input measures and to ‘adopt a greater and more overt reliance on outcome measures.’”¹⁴

Changes to ABA Standards 301, 302, 314, and 315 effectuated this shift, and together, they require law schools to focus more on what students learn.¹⁵ Specifically, Standard 302 requires schools to develop and articulate student “learning outcomes”¹⁶ (i.e., the school’s goals for what students will be able to do as a result of the school’s program of legal education), and Standard 301(b) requires law schools to publish the learning outcomes.¹⁷ Then, Standard 315 requires schools to “conduct ongoing evaluation of the law school’s program of legal education, learning outcomes, and assessment methods” and to “use the results of this evaluation to . . . make appropriate changes to improve the curriculum.”¹⁸

Standard 314, which is the focus of this Article, is an important part of this package of changes. Standard 314 now provides, “A law school shall utilize both formative and summative assessment methods in its curriculum to measure and improve student learning and provide meaningful feedback to students.”¹⁹ Interpretation 314-1 elaborates, explaining that “[f]ormative assessment methods 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.”²⁰ Revised Standard 314 applied to law schools beginning in 2016–17,²¹ and the adoption of this standard is the primary motivation driving some schools to push their faculty members to do more formative assessment.²²

14. ABA EXPLANATION, *supra* note 1, at 6.

15. See Duncan, *supra* note 5, at 462; see also *supra* note 5 (citing resources to help administrators and faculty members understand and implement the requirements of ABA Standards 302 and 315).

16. ABA STANDARDS, *supra* note 2, Standard 302.

17. *Id.* Standard 301(b).

18. *Id.* Standard 315.

19. *Id.* Standard 314.

20. *Id.* Interpretation 314-1.

21. ABA Transition, *supra* note 13, at 2.

22. Interpretation 314-2 makes it clear that “[a] law school need not apply multiple assessment methods in any particular course[.]” meaning that, technically, a course could use only summative assessment without any formative assessment. ABA STANDARDS, *supra* note 2, Interpretation 314-2. Nevertheless, all faculty members, especially full-time or tenured/tenure-track

B. Formative Assessment

Although the ABA Standards only recently added a requirement for formative assessment in law schools, the concept of formative assessment has long been part of education more generally.²³ Indeed, formative assessment is “recognized in the research literature as one of the most powerful ways to enhance student motivation and achievement.”²⁴

The basic goal of formative assessment is to “provide meaningful feedback to improve student learning.”²⁵ This is in contrast to “summative assessment,” which seeks to measure cumulative learning and achievement.²⁶ That is, formative assessment is developmental whereas summative assessment is evaluative.²⁷ Formative assessment is generally

faculty members, should expect to be required to support their institution’s efforts to comply with Standard 314’s mandate to utilize formative assessment. That likely means integrating formative assessment into every course.

23. See Fisher, *supra* note 5, at 227–28 (explaining that undergraduate institutions began to alter their curricula around 1973 to integrate assessment to improve student learning, awareness of the benefit of assessment had spread among educators and the public by the mid-1980s, and assessment requirements for institutions began not long thereafter). Dentistry also shifted to outcomes-based measurements in 1988. *Id.* In contrast, the focus on formative assessment in law schools is much more recent. See *supra* notes 6 & 12.

24. Clark, *supra* note 7, at 241.

25. ABA STANDARDS, *supra* note 2, Interpretation 314-1; see also SCHWARTZ ET AL., *supra* note 6, at 157 (explaining that formative assessment’s “main purpose is to help students learn”). See generally notes 6, 7, & 12 (citing additional resources about formative assessment).

26. ABA STANDARDS, *supra* note 2, Interpretation 314-1; see also Duhart, *supra* note 6, at 497 (explaining that summative assessment is a “snapshot” intended only to determine what someone has learned up to a certain point” and that “[i]t literally ‘sums up’ what students have learned”).

27. BEST PRACTICES, *supra* note 12, at 255; CARNEGIE REPORT, *supra* note 12, at 164, 188–89; SCHWARTZ ET AL., *supra* note 6, at 174 (explaining that summative assessment “primarily focuses on evaluation rather than student development”); *What Is the Difference Between Formative and Summative Assessment?*, CARNEGIE MELLON UNIV., <https://www.cmu.edu/teaching/assessment/basics/formative-summative.html> (last visited Apr. 26, 2019) [hereinafter *What Is the Difference?*].

low-stakes whereas summative assessment is typically high-stakes.²⁸ And formative assessment is a means for learning whereas summative assessment marks an end.²⁹ For example, the final exam in a class is summative,³⁰ but an exercise on which a student gets feedback during the course can be formative.

Formative assessment, however, is not merely the provision of feedback. Rather, formative assessment involves “*feedback to improve student learning*.”³¹ Critical to formative assessment is the approach used in providing feedback (i.e., constructive rather than evaluative) and the actions taken in response to the feedback. That is, formative assessment involves feedback loops that help both students and faculty improve.

1. *Helping Students Improve Learning & Build Metacognition*

a. *Improving Learning*

Formative assessment “can take many forms,”³² but fundamentally, it helps students assess their learning progress and determine how they

28. *What Is the Difference?*, *supra* note 27; Duhart, *supra* note 6 (arguing that formative assessments should be “low stakes”); *see also* Carol Springer Sargent & Andrea A. Curcio, *Empirical Evidence that Formative Assessments Improve Final Exams*, 61 J. LEGAL EDUC. 379, 382 (2012) (“Numerous studies suggest that [formative] feedback may be more effective if ungraded because students tend to focus on grades, not suggestions for improvement.”).

29. *What Is the Difference?*, *supra* note 27; Duhart, *supra* note 6, at 497 (explaining that, “in many cases, the course is over” once summative assessment has occurred).

30. Even a final exam, while generally primarily summative, could have a formative component if feedback is provided to the student and that feedback is used by the student to improve for the future. Students, however, do not often engage with their final exams in this way, at least in my experience.

31. ABA STANDARDS, *supra* note 2, Interpretation 314-1 (emphasis added); Black & Wiliam, *supra* note 7, at 53 (“[F]eedback in any assessment. . . . is formative only when comparison of actual and reference levels yields information which is then used to alter the gap”—i.e., the extent to which the performance was short of the reference standard.).

32. BEST PRACTICES, *supra* note 12, at 256; Black & Wiliam, *supra* note 7, at 7–8 (defining formative assessment to “encompass[] all those activities undertaken by teachers, and/or by their students, which provide information

can improve. Specifically, formative assessment should, in a positive and timely manner, give students specific and concrete information about what they have learned and what they have not,³³ noting that studies suggest that a key to helping students improve is providing “an explanation of *why* an answer was correct or incorrect.”³⁴ This information enables students to understand how well they are progressing toward the learning objectives of the course, correct any misunderstandings, and fill gaps in their learning. Thus, formative assessment benefits learners by creating a feedback loop pursuant to which students get information about their progress, which they can use to improve their learning.³⁵

to be used as feedback to modify the teaching and learning activities in which they are engaged”); *see also infra* note 84 & Parts IV–V.

33. SCHWARTZ ET AL., *supra* note 6, at 18–19, 162–68.

34. Sargent & Curcio, *supra* note 28, at 400 (emphasis added) (describing this as “one key to improved performance”).

35. *See, e.g.*, SCHWARTZ ET AL., *supra* note 6, at 19 (noting that “[f]ormative feedback is an essential part of the learning loop”); Lasso, *supra* note 6, at 75, 83 (“For the learning loop to work optimally, students need several chances during the semester [i.e., through formative assessment] to reflect on what they have learned, what they still need to know, and how to improve their learning.”). The literature contains many descriptions of this student learning loop created by effective formative assessment, but they share the same fundamental concepts:

[T]here are three necessary conditions for feedback on formative assessments to benefit learners. These conditions are: 1) students must have knowledge of the standard or goal to be achieved by the assessment; 2) students must assess [often with input from the instructor] their own work against that standard or goal of good performance; and 3) students must take action to improve their work to meet that standard or goal, and thereby close the gap between their present work and what is expected.

Andrew Noble, *Formative Peer Review: Promoting Interactive, Reflective Learning, or the Blind Leading the Blind?*, 94 U. DET. MERCY L. REV. 441, 445 (2017) (citing Sadler, *supra* note 7).

b. Building Metacognition

Formative assessment is about more than helping students learn material that has been taught. An important part of the formative assessment process is about metacognition and students' abilities to be self-regulated learners.³⁶ Very generally, "metacognition" is one's ability to think about one's own thinking processes (e.g., asking, "What portion of this do I already know?" "Am I understanding this new concept?" and "What am I missing?"),³⁷ and "self-regulated learning" involves the use of metacognition to take the steps needed to learn effectively (e.g., planning and taking action to fill the identified gaps in one's understanding).³⁸

36. See, e.g., Clark, *supra* note 7, at 215–17, 221–23 (arguing that formative assessment methods inherently operate to further the development of self-regulated learning); Sadler, *supra* note 7, at 119 ("A key premise [underlying the theory of formative assessment] is that for students to be able to improve, they must develop the capacity to monitor the quality of their own work during actual production.").

37. Niedwiecki, *Teaching*, *supra* note 6, at 156–57 (discussing metacognition "as the internal voice people hear when they are engaged in the learning process"). See generally *infra* notes 39 & 40 (citing resources).

38. That is, technically, metacognition is a component of self-regulated learning. "Self-regulated learning is defined as 'an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition.'" Elizabeth M. Bloom, *Teaching Law Students to Teach Themselves: Using Lessons from Educational Psychology to Shape Self-Regulated Learners*, 59 WAYNE L. REV. 311, 313 (2013) (quoting Clark, *supra* note 7, at 216).

"Metacognition is the awareness of the learners in their own academic strengths and weaknesses, cognitive resources that they can apply to meet the demands of tasks, and how to regulate the engagement of tasks." . . . [—i.e.,] "the aspect of regulation that focuses on monitoring and controlling" one's learning, [and that] "encourage[s] learners to be introspective, conscious, and vigilant about their own learning."

Id. at 316–17 (third alteration in original) (quoting Carlo Magno, *Developing and Assessing Self-Regulated Learners*, in 1 THE ASSESSMENT HANDBOOK: CONTINUING EDUCATION PROGRAM 28 (2009); Marilla D. Svinicki, *Student*

There is a lot of literature, both in legal education³⁹ and in education more generally,⁴⁰ on these topics, but very fundamentally, the idea

Learning: From Teacher-Directed to Self-Regulation, NEW DIRECTIONS FOR TEACHING & LEARNING, Fall 2010, at 73, 76; and Schwartz, *supra* note 12, at 376); *see also* Clark, *supra* note 7, at 215, 242 (“meta-cognition and self-efficacy [are] fundamental to the development of SRL” and explaining that meta-cognition is an “influential force in creating SRL”). *See generally* Patricia A. Alexander, *Why This and Why Now? Introduction to the Special Issue on Metacognition, Self-Regulation, and Self-Regulated Learning*, 20 EDUC. PSYCHOL. REV. 369, 369 (2008) (noting “the lack of conceptual clarity” among these concepts).

39. *See, e.g.*, BEST PRACTICES, *supra* note 12, at 127–28; CARNEGIE REPORT, *supra* note 12, at 173; MICHAEL HUNTER SCHWARTZ, EXPERT LEARNING FOR LAW STUDENTS 27–31, 33–49, 65–78 (2005) [hereinafter SCHWARTZ, EXPERT LEARNING] (discussing the self-regulating learning cycle from the student’s perspective); SCHWARTZ ET AL., *supra* note 6, at 8–10, 90–95, 260–62, 281–82; Patti Alleva & Jennifer A. Gundlach, *Learning Intentionally and the Metacognitive Task*, 65 J. LEGAL EDUC. 710, 719–43 (2016); Bloom, *supra* note 6, at 239–58; Bloom, *supra* note 38, at 316–23, 338–48; 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 (2003); Jennifer M. Cooper, *Smarter Law Learning: Using Cognitive Science to Maximize Law Learning*, 44 CAP. U. L. REV. 551 (2016); E. Scott Fruehwald, *How to Help Students from Disadvantaged Backgrounds Succeed in Law School*, 1 TEX. A&M L. REV. 83, 105–22 (2013); Niedwiecki, *Lawyers & Learning*, *supra* note 6; Niedwiecki, *Teaching*, *supra* note 6; Cheryl B. Preston et al., *Teaching “Thinking Like a Lawyer”: Metacognition and Law Students*, 2014 B.Y.U. L. REV. 1053; Michael Hunter Schwartz, *Teaching Law Students to Be Self-Regulated Learners*, 2003 MICH. ST. DCL L. REV. 447, 480 [hereinafter Schwartz, *Teaching Law Students*]; Paul T. Wangerin, *Learning Strategies for Law Students*, 52 ALB. L. REV. 471, 476–77 (1988) (an early advocate of teaching metacognitive skills in law school).

40. *See, e.g.*, HANDBOOK OF METACOGNITION IN EDUCATION (Douglas J. Hacker et al. eds., 2009); HOW PEOPLE LEARN, *supra* note 7, at 18–21, 67; BARRY J. ZIMMERMAN ET AL., DEVELOPING SELF-REGULATED LEARNERS: BEYOND ACHIEVEMENT TO SELF-EFFICACY (1996); Alexander, *supra* note 38; Clark, *supra* note 7; Hope J. Hartman, *Developing Students’ Metacognitive Knowledge and Skills*, in METACOGNITION IN LEARNING AND INSTRUCTION: THEORY, RESEARCH AND PRACTICE 33, 33–68 (Hope J. Hartman ed., 2001); Hope J. Hartman, *Metacognition in Teaching and Learning: An Introduction*, 26 INSTRUCTIONAL SCI. 1 (1998); David J. Nicol & Debra Macfarlane-Dick, *Formative Assessment and Self-Regulated Learning: A Model and Seven Principles of*

is that a critical part of formative assessment is about helping students *learn how to learn*.⁴¹ This is important because, among other reasons, professors cannot provide formative feedback on everything covered in class,⁴² and students need to be able to self-assess their learning in the absence of feedback from the professor.⁴³ Similarly, when students become lawyers, professors will no longer be there to provide feedback; students will need to be sufficiently expert as *learners*⁴⁴ to “handle the

Good Feedback Practice, 31 *STUD. HIGHER EDUC.* 199, 200 (2006). *See generally Special Issue on Metacognition*, 20 *EDUC. PSYCHOL. REV.* 369 (2008) (special issue about metacognition and self-regulated learning); *METACOGNITION & LEARNING*, <https://link.springer.com/journal/11409> (educational psychology journal founded in 2006).

41. *See, e.g.*, Preston et al., *supra* note 39, at 1076. This effort to help students “learn how to learn” may feel uncomfortable to students because it can be in tension with students’ increasingly consumer-like mentalities that focus more on correct answers and grades than on the “process of learning.” Karen McDonald Henning & Julia Belian, *If You Give a Mouse a Cookie: Increasing Assessments and Individualized Feedback in Law School Classes*, 95 *U. DET. MERCY L. REV.* 35, 43–44 (2017). However, student resistance to and discomfort with the formative feedback loop’s emphasis on the learning process can decline over time as students become more accustomed to this approach and see its benefits. *Id.* at 38, 59. In addition, being transparent with students about the metacognitive goals of formative feedback can help students understand both how to use this feedback effectively and the value of trying to do so. *See infra* notes 120, 183–186 and accompanying text.

42. Also, “not every outcome need be assessed.” Fines, *supra* note 6, at 98.

43. It is important to balance (a) giving feedback to students to help them build substantive knowledge and metacognition and (b) allowing students to exercise their metacognitive skills and practice being self-regulated learners. The former empowers the latter, but too much spoon-fed feedback, information, and guidance can hinder students’ abilities to become independent, self-directed learners. *See* Emily Grant, *Helicopter Professors*, 53 *GONZ. L. REV.* 1, 2–7, 24–26 (2017). Thus, even in a classroom where formative feedback is provided regularly, it is also important that there be some situations in which students are expected to self-assess rather than rely solely on professor-provided feedback.

44. “Being an expert learner is not about how much knowledge the person has, but about that person’s ‘ability to implement appropriate regulatory strategies when they become aware that certain facts or skills are missing from their learning repertoires that are necessary for reaching desired

constant learning required of lawyers” as they encounter novel situations and grapple with unfamiliar legal concepts.⁴⁵ That is, metacognitive and self-regulated learning skills are important lawyering skills.⁴⁶

Professors can and should⁴⁷ use formative assessments to help students build these skills by providing feedback to students on their learning, encouraging them to reflect on whether their assessment about their learning progress matched the feedback they received, prompting them to take the steps necessary to integrate the feedback into their learning, and then asking them to reassess their learning progress.⁴⁸ This process trains students to become able to assess their learning by themselves and take responsive action to improve their learning when needed.⁴⁹ If students can self-assess and figure out what they know and what they do not, they can know when to ask for help (and on what topics), know when to invest more time and effort in learning, and know when (and hopefully how) to adjust their approach to help them learn more effectively.

academic goals.” Niedwiecki, *Teaching*, *supra* note 6, at 155 (quoting Peggy Ertmer & Timothy Newby, *The Expert Learner: Strategic, Self-Regulated, and Reflective*, 24 INSTRUCTIONAL SCI. 1, 1 (1996), and explaining, in effect, that expert learning requires metacognition and self-regulated learning skills).

45. Niedwiecki, *Teaching*, *supra* note 6, at 153–54.

46. See, e.g., Preston et al., *supra* note 39, at 1074–80 (identifying important skills needed for success as a lawyer and explaining how high metacognition enhances these skills); Schwartz, *Teaching Law Students*, *supra* note 39, at 472 (noting that “two lawyers who used to train new lawyers for a large, prestigious, national law firm have told [the author] 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 . . . a crucial aspect of self-regulated learning.”).

47. Niedwiecki, *Teaching*, *supra* note 6, at 176–77 (citing research arguing that formative assessment “should be used to assist students in becoming better self-regulated learners”).

48. See, e.g., SCHWARTZ ET AL., *supra* note 6, at 90–95 (illustrating this process using formative assessments that explicitly “get[] students to take their ‘metacognitive pulse’”).

49. *Id.*; Niedwiecki, *Teaching*, *supra* note 6, at 152 (“[P]rofessors can use the formative assessment process to improve the metacognitive skills of law students so they are more successful at transferring their learning to the new and novel situations they will encounter in the practice of law.”).

Consider the student who answers a question incorrectly. Isn't it better if that student knows that he does not quite understand the material than if the student is confident that he answered correctly? In the former situation, at least the student has the self-awareness to know that his learning is incomplete. That self-awareness is part of metacognition and part of what empowers him to be a self-regulated learner. If he does not know there are gaps in his learning, he will not know that he needs to take action to fill those gaps. Formative assessment helps build these learning skills so that students can take more ownership of their own learning, thereby becoming partners with the instructor in the learning process.⁵⁰ And this helps students become more effective learners throughout the course, law school, and their professional lives.

2. Helping the Professor Adapt Instruction to Improve Student Learning

Formative assessment is not just about giving students more information on which they can act. Formative assessment also gives instructors more information on which we can and should act. Specifically, understanding what the students have learned empowers a professor to adapt her instructional approach to advance student learning and better meet student needs.⁵¹ Thus, formative assessment also involves a feedback loop for instructors.⁵² Ideally, the instructor's teaching adjustment should

50. See, e.g., Alleva & Gundlach, *supra* note 39, at 711 (explaining that the learning process is “an active partnership, where both teacher and student share responsibilities for maximizing student learning”); Jarene Fluckiger et al., *Formative Feedback: Involving Students as Partners in Assessment to Enhance Learning*, 58 C. TEACHING 136 (2010) (similar); 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, 450, 456–60, 497–502 (2013) (discussing the importance of students taking responsibility for their learning).

51. See, e.g., BEST PRACTICES, *supra* note 12, at 256; SCHWARTZ ET AL., *supra* note 6, at 155–70, 201–12 (stating that formative assessment provides teachers with information that they can use to improve their teaching and develop as instructors); Alleva & Gundlach, *supra* note 39, at 737–79; Lasso, *supra*, note 6, at 88.

52. See, e.g., SCHWARTZ ET AL., *supra* note 6, at 155–56 (illustrating the assessment feedback loop for instructors); John McCarthy, *Formative Assessment Cycle—A Necessary Good*, OPENING PATHS (Mar. 24, 2014),

occur within the course itself, and not just for the next time she teaches the same course. That enables her to improve her teaching in the moment, perhaps by revisiting a topic to clear up student confusion or by providing another opportunity for skill-building for a skill with which students are still struggling. Thus, formative assessment helps instructors determine how to allocate instructional time and energy to maximize student learning, to identify which teaching strategies are more (or less) effective (and for which topics), and to increase the impact of her teaching efforts.⁵³

It is important to acknowledge, however, that embracing formative assessment requires a shift in mindset—away from what we teach and toward what students actually learn, away from what we impart and toward what students internalize, and away from our intent and toward our impact.⁵⁴ That shift in mindset can be uncomfortable, and the process of implementing this shift can be challenging.⁵⁵

III. SOME WORDS OF ENCOURAGEMENT

Integrating more formative assessment into your classes may feel like a daunting task, but there are several reasons to be optimistic about this endeavor.

<http://openingpaths.org/blog/2014/03/formative-assessment-cycle/> (illustrating the same feedback loop, but outside the context of legal education).

53. See, e.g., SCHWARTZ ET AL., *supra* note 6, at 168.

54. See, e.g., ABA OUTCOME MEASURES, *supra* note 12, at 54–64 (endorsing these shifts); Deborah Maranville, *Transfer of Learning*, in BUILDING ON BEST PRACTICES, *supra* note 6, at 90, 90–93 (discussing the difference between what we believe we teach and what students retain for later use, and discussing how faculty can shift to achieve more impact and retention); Renee Nicole Allen & Alicia R. Jackson, *Contemporary Teaching Strategies: Effectively Engaging Millennials Across the Curriculum*, 95 U. DET. MERCY L. REV. 1, 2–3, 20–23 (2017) (discussing the shift to “student-centered learning”); Black & Wiliam, *supra* note 7, at 60–61 (identifying key aspects of the “paradigm shift” when moving from traditional methods of assessment to a problem-solving style of assessment that takes a formative approach implemented to improve learning); Jones, *supra* note 6, at 89–91 (part discussing the shift from “Educational Inputs to Outputs”).

55. The discomfort and challenge arise not only for professors but for students as well. See *supra* note 41.

A. You Already Do Some Formative Assessment

Whenever you answer a student's question and have a conversation in which you evaluate if they understand your response, you have engaged in formative assessment. Each time you ask a student a question in class and give them input about their answer, you are providing formative feedback. This is particularly true when using the problem method in tax classes.⁵⁶ Because students are generally expected to prepare the problems in advance, the Socratic dialogue about the answers to the assigned problems provides students with direct feedback about how well they understood and applied the assigned statutes, regulations, cases, and other materials.⁵⁷ These everyday steps that almost every professor takes to evaluate whether and what a student understands and to respond in an effort to improve the student's understanding are all part of formative assessment.⁵⁸ In addition, many tax professors are already doing even more extensive formative assessment in class, using problems, exercises, and other tools.

The challenges, however, are providing formative feedback broadly for all students in your class (and not just for some individual students that happen to be on call on a particular day), doing so on a regular and continuous basis (and not merely sporadically), and doing so with intention (rather than in an ad hoc way) in order to advance

56. Problem-based learning already incorporates, at least to some degree, an assessment-centered approach to teaching and learning. *See, e.g.,* Barbara J. Flagg, *Experimenting with Problem-Based Learning in Constitutional Law*, 10 WASH. U. J.L. & POL'Y 101, 139 (2002) ("A problem-based method presents multiple opportunities for formative assessment—interim feedback designed to allow students to correct errors—during the problem-solving process."); Friedland, *supra* note 3, at 598 (citing David Gijbels et al., *Effects of Problem-Based Learning: A Meta-Analysis from the Angle of Assessment*, 75 REV. EDUC. RES. 27 (2005)).

57. *See* Fines, *supra* note 6, at 98 ("[T]he Socratic dialogue method of teaching can be viewed as simply a series of assessments that sample student learning."); Elizabeth G. Porter, *The Socratic Method*, in BUILDING ON BEST PRACTICES, *supra* note 6, at 101, 104–110 (discussing how to maximize active student learning using the Socratic method).

58. *See* Duncan, *supra* note 5, at 463 (noting that "most faculty members intuitively already engage in an assessment cycle in their individual classes"); Black & Wiliam, *supra* note 7, at 7 (defining formative assessment broadly to include these activities).

particular learning goals. But identifying and valuing the formative assessment that you already do provides a foundation on which you can build.

B. Additional Formative Assessment Efforts Can Help You Achieve Your Teaching Goals

A professor can target her formative assessment efforts at the substantive issues and skills that matter most to her. In many ways, the ABA Standards feel like they are asking us to do more work, and they are. But that work does not have to be busy work. Rather, it can help each professor better achieve whatever the professor's teaching goals are for a course, for an individual class session, or for a unit within the course. If you focus your formative assessment efforts on whatever topics or issues you most want students to learn,⁵⁹ you can increase the likelihood that students will learn what you want them to learn and that you will teach in a way that achieves *your* goals.

There will always be the reporting aspect of complying with the ABA Standards. At some point, each professor will have to describe for her dean, accreditation self-study committee, or someone else what she does for formative assessment, and that is not fun. But, at the least, the primary effort—adding formative assessment to one's classes—can be more than a perfunctory administrative inconvenience and can instead serve whatever your goals are for your students and your classes.⁶⁰

C. Formative Assessment Efforts Will Matter for Your Students

“Contemporary learning theory suggests that efficient application of educational effort is significantly enhanced by the use of formative assessment.”⁶¹ Evidence supports this theory that formative assessment enhances learning. Based on a review of about 250 studies on (non-law school) classroom formative assessment, “[t]wo researchers who lead

59. Presumably, these things that you really want students to learn are incorporated in your course's student learning outcomes.

60. Cf. Duncan, *supra* note 5, at 465 (encouraging people to think of “the process of assessment as integral to improving student learning and not to meet ABA requirements”).

61. CARNEGIE REPORT, *supra* note 12, at 189.

the field on formative assessment”⁶² concluded that “attention to formative assessment can lead to significant learning gains.”⁶³

Studies about formative assessment in law schools, although rarer, also suggest that formative assessments improve learning. A 2012 study “at a second-tier urban public law school with a diverse student body”⁶⁴ demonstrated that “formative assessments can improve students’ final exam scores for a majority of students, and that some students with weak first year grades may catch up to their peers with feedback.”⁶⁵ The 2012 study built on an earlier study, the results of which suggested that individualized formative feedback on short essays during the semester was associated with higher performance on the semester-end essay exam.⁶⁶ Both studies had limitations,⁶⁷ but more recent natural experiments continue to support the conclusion that formative assessment makes a difference for students. For example, one such natural experiment at the University of Minnesota Law School “demonstrat[ed] that individualized feedback in a single class during the first year of law school can improve law students’ exam quality in all their *other* classes.”⁶⁸ The authors found the effect to be “statistically significant and hardly trivial in magnitude . . . after controlling for students’ LSAT scores, undergraduate GPA, gender, race, and country of

62. Niedwiecki, *Teaching*, *supra* note 6, at 175 (referring to Paul Black and Dylan Wiliam).

63. *Id.* at 176 (quoting Black & Wiliam, *supra* note 7, at 17).

64. Sargent & Curcio, *supra* note 28, at 385. This study involved students in an Evidence course who “received a series of formative assessments, including five ungraded quizzes and a graded midterm.” *Id.*

65. *Id.* at 400 (noting that the benefits “accrue disproportionately to students who are in the top two-thirds in terms of LSAT/UGPA”). There is also a much earlier study about the impact of giving more than one test, which implicitly supports the idea that formative feedback can improve learning. Gary A. Negin, *The Effects of Test Frequency in a First-Year Torts Course*, 31 J. Legal Educ. 673, 676 (1981) (concluding that “academic achievement could be improved if more than one test was given”).

66. Andrea A. Curcio et al., *Does Practice Make Perfect? An Empirical Examination of the Impact of Practice Essays on Essay Exam Performance*, 35 FLA. ST. U. L. REV. 271 (2008).

67. See Daniel Schwarcz & Dion Farganis, *The Impact of Individualized Feedback on Law Student Performance*, 67 J. LEGAL EDUC. 139, 147–50 (2017) (describing these studies and their limitations).

68. *Id.* at 140 (emphasis added).

birth.”⁶⁹ They also found that “the positive impact of feedback [was] stronger among students whose combined LSAT score and undergraduate GPA [fell] below the median at the University of Minnesota Law School,”⁷⁰ which is important because those students “incur the largest costs to attend law school and . . . are most at risk of failing the bar exam or being unable to land desirable postgraduate employment.”⁷¹ Another recent experiment at Moritz College of Law at The Ohio State University similarly demonstrated that opting to take a practice exam on which formative feedback was provided “was associated with higher grades in all of the students’ *other* spring-semester classes.”⁷²

All of that suggests that formative assessment can make a meaningful difference for law students.⁷³ Of course, there are open questions, including whether “the results [would] be similar with different kinds of formative assessments under different conditions,”⁷⁴ different types of feedback on the assessments, and students with very different LSAT/UGPA profiles, among other things. These could be topics for future research.⁷⁵ The impact of formative feedback also likely varies depending on whether and how the individual student uses the feedback.⁷⁶ Different students and students at different schools may use feedback more or less effectively. But for many students, formative feedback can be transformative for their learning.

It is also possible that students’ rankings, as compared to each other, will not change if all students receive and use formative feedback

69. *Id.* at 139.

70. *Id.*

71. *Id.* at 143.

72. Ruth Colker et al., *Formative Assessments: A Law School Case Study*, 94 U. DET. MERCY L. REV. 387, 428 (2017).

73. See Cooper, *supra* note 39, at 559–66, 576–81, 585–86 (discussing empirical research in cognitive science that provide insights into learning and academic performance and discussing how these insights can be used in law schools to improve learning, describing activities that constitute formative assessment).

74. Colker et al., *supra* note 72, at 416.

75. *Id.* at 428.

76. Sargent & Curcio, *supra* note 28, at 382–83; see also *supra* note 35 and associated text (discussing the importance of feedback loops for students and the use by the student of the feedback to change their learning behavior).

effectively.⁷⁷ However, even if that occurs, formative feedback can lift all (or at least many) boats, improving a student's performance as measured against what their performance would have been without the feedback.⁷⁸ That can be valuable in the long run for purposes of bar passage, lawyering competencies, quality of service to clients, and professional success, which are the outcomes that really matter.

D. You Do Not Have to Transform Your Course Overnight

Unless your dean says otherwise (and if she does, I would respectfully challenge her),⁷⁹ integration of formative assessment can be incremental and can grow over time.⁸⁰ At least for purposes of complying with the ABA Standards now, taking the formative assessment effort seriously matters more than achievement of instantaneous transformation.⁸¹ Start by adding specific approaches to formative assessment to a course, then evaluate the assessment both during and after the course, and adjust

77. I think this is unlikely because students differ in the extent to which (and the efficacy with which) they use the feedback provided. See Sargent & Curcio, *supra* note 28, at 394–97 (discussing why some students may be more able to use feedback effectively).

78. The learning literature argues that criteria-based measurements, where students are assessed with reference to objective requirements, are more useful for measuring student learning than relative measurements, where students are assessed with reference to each other. See, e.g., BEST PRACTICES, *supra* note 12, at 243–45.

79. See Duncan, *supra* note 5, at 465 (encouraging deans, when implementing an assessment strategy, to take an incremental approach, “to keep things simple and to start small”).

80. See ANGELO & CROSS, *supra* note 7, at 25–32 (recommending starting small with formative assessment); Sophie Sparrow, *Taking a Small Step Toward More Assessments*, in HESS ET AL., *supra* note 6, at 280, 280–82 (same).

81. The ABA explained that its assessment of a school's compliance with Standard 314 includes “evaluating the seriousness of the school's efforts to establish and assess student learning outcomes, [rather than focusing on] attainment of a particular level of achievement for each learning outcome.” *ABA Transition*, *supra* note 13, at 2 (“[F]actors to consider in assessing compliance [include] . . . whether the school is working effectively . . . to integrate teaching and assessment of those outcomes into its curriculum; and whether the school has identified when and how students receive feedback on their development of the identified outcomes.”).

the formative assessment for the next portion of the course and for the next iteration of the course to respond to your (and your students') evaluation of your efforts. That approach actually reflects the essence of self-regulated learning—setting a goal, taking steps to try to achieve that goal, assessing the impact of effort (here, your effort to improve student learning), determining how to improve that impact, and taking responsive action.⁸² Learning requires an iterative process of assessment, reflection, and integration. So does teaching, particularly for professors focused on the impact of their teaching.

Throughout a course and over a series of courses, you can see what works and what does not, and you can figure out what engages students and what does not. With each reflection, you can strategize to increase the impact of your efforts while (possibly) decreasing the burden, and you can determine what new formative assessments you want to add and how you can try to make them most effective.

E. There Is No One "Right" Way

The ABA is clear that "[l]aw schools [and thus law professors] are not required by Standard 314 to use any particular assessment method."⁸³

As evidenced by the range of strategies discussed in Parts IV and V (and the even greater range of techniques discussed in the literature), there are many different ways to do formative assessment.⁸⁴ Yet some instructors believe that formative assessment must entail individualized written feedback provided by the instructor on each student's written work. That, not surprisingly, leads instructors to become exhausted merely by thinking about the prospect of providing such feedback especially in large classes. However, "[m]ore [a]ssessment [d]oes

82. See *supra* Part II.B.2 (discussing the teaching feedback loop and the value of formative assessment for purposes of improving teaching).

83. ABA STANDARDS, *supra* note 2, Interpretation 314-2.

84. See, e.g., ANGELO & CROSS, *supra* note 7, at 103–362 (describing fifty techniques for formative assessment), Gregory S. Munro, *How Do We Know If We Are Achieving Our Goals?: Strategies for Assessing the Outcome of Curricular Innovation*, 1 J. ASS'N LEGAL WRITING DIRECTORS 229, 242–44 (2002) (describing nine techniques that "can be employed successfully in virtually any class"); Ramy, *supra* note 6, at 872–85; see also David Wees, *56 Different Ways to Gather Evidence of Student Achievement*, EDUTOPIA (Dec. 10, 2012), <https://www.edutopia.org/groups/assessment/250941>.

[n]ot [n]ecessarily [m]ean [m]ore [g]rading.”⁸⁵ There are many other useful approaches to formative assessment that do not involve professor-provided individualized feedback on written work and that can, thus, be much less daunting to undertake.⁸⁶

The “right” techniques for formative assessment will vary by professor, course, learning objectives, students, and other factors. Just because a particular strategy works for me or for someone else, even for the same course you teach, it may not be the best strategy for you and your class. In addition, although professors often use multiple strategies, you can start with one. You certainly do not have to use multiple (or all of the) strategies discussed herein; this Article provides a list of ideas, not mandates. And although it is good practice to include formative assessments throughout a course,⁸⁷ you do not have to use them all of the time. Use your judgment about what strategies for formative assessment are likely to work for your students, for your classes, and at what points.

Also, do not be afraid to try something new if you think it might work well for your class. But you must be open to evaluating and revising your approaches to formative assessment. Some things will work well for your students and other things may not. We, like our students, often learn by failing first. This is an iterative, and sometimes humbling, process. I am still learning about what is most effective for my students, and each semester, I continue to try to make at least one significant change to my class to improve the formative feedback I provide.

Ultimately, the key is to focus on improving student learning by making deliberate choices both about the learning objectives you want students to achieve and about the type and design of formative assessment that will best advance those goals.⁸⁸ Unless your dean requires or your colleagues reach consensus mandating particular formative assessment approaches, the choice of exactly which formative assessment techniques you employ (and in which circumstances) is generally up to you.

85. Ramy, *supra* note 6, at 841.

86. See *infra* Parts IV, V.A, V.B, & V.C.2.b.

87. See BEST PRACTICES, *supra* note 12, at 255; SCHWARTZ ET AL., *supra* note 6, at 150–51.

88. See SCHWARTZ ET AL., *supra* note 6, at 156–162 (discussing the process of identifying and administering formative assessments that work for a particular situation).

*F. There Are Many Places to Start When Integrating
Formative Assessment*

Pick a starting place that resonates with you and build from there.

You can start by selecting one of your course's learning objectives⁸⁹ and identifying one formative assessment technique for that objective.⁹⁰ For example, if one of your learning objectives (like mine) is to enable students to improve their ability to analyze and apply complex statutes, you can devise formative assessment tools to help assess and provide feedback on students' statutory reading abilities. This could include multiple choice questions or an in-class exercise based on a statute that students have not seen.⁹¹ The literature generally endorses this approach—starting from learning objectives and designing formative assessments to assess and provide feedback on progress toward those objectives⁹²—but you can build up to this over time. Or you can use one of the other starting points discussed below and work in the other direction to determine which learning objectives (if any) are advanced by a particular formative assessment approach you are considering⁹³ (and, of course, reflecting on whether you want to advance that objective).

Another way to begin is to identify the things that most frustrate you when students fail to grasp them year after year,⁹⁴ and select

89. I assume that you have articulated student learning objectives for your course and that your school has articulated program learning objectives for its degree programs. ABA STANDARDS, *supra* note 2, Standards 301(b) & 302.

90. The literature recommends using multiple formative assessment methods throughout the term. *See, e.g.*, BEST PRACTICES, *supra* note 12, at 255; SCHWARTZ ET AL., *supra* note 6, at 150; Fisher, *supra* note 5, at 236. However, it is reasonable to start with one method and build from there.

91. *See infra* Part IV.A (multiple choice questions); Part V.A (in-class exercises).

92. *See, e.g.*, SCHWARTZ ET AL., *supra* note 6, at 155–62 (describing the “assessment cycle” in this order); Fines, *supra* note 6, at 96–99 (similar); Fisher, *supra* note 5, at 237–39 (describing this approach as reflecting the “principles of ‘backward design’” and citing additional resources (quoting L. DEE FINK, CREATING SIGNIFICANT LEARNING EXPERIENCES 63 (2003))).

93. *Cf.* Johnstone et al., *supra* note 6, at 271–74 (emphasizing the importance of the relationship between assessment techniques and the learning objectives, but placing less emphasis on the order of the steps).

94. Perhaps these things should be part of your student learning objectives, if they are not already.

formative assessment strategies that help students learn those things. For example, imprecise use of tax vocabulary by students really aggravates me because I believe that students cannot truly understand the concepts if they do not have the right vocabulary (e.g., credit vs. deduction vs. exclusion; realize vs. recognize; inside basis vs. outside basis; allocation vs. distribution in partnership tax; distribution vs. dividend in corporate tax). Moreover, I hate for students to be judged harshly by employers and others for failure to use tax terminology precisely. Thus, I use multiple formative assessment techniques, some of which are described herein, to hammer home tax vocabulary.

A different approach to this task is to review the various formative assessment strategies described below, identify the things you already do (at least to some extent), and tweak those things to make them more effective and more deliberate. Later, you can add additional techniques when you are ready. For example, if you discuss an extra hypothetical at the end of a unit to enable students to check their understanding of the unit's material, you can turn that problem into a multiple choice question, thereby engaging all students in active learning.⁹⁵

One more option is to use one of the above approaches to select a tentative starting place and, before proceeding, chat with your colleagues in your school's Academic Support Department.⁹⁶ Those colleagues are usually expert teachers who use formative assessment all the time. My experience is that they have a wealth of insights and expertise, and they can often provide feedback about your formative assessment ideas to help you be as effective as possible and, importantly, avoid pitfalls. You may even find opportunities to collaborate as you bring more formative assessment into your classroom.

Ultimately, there are many formative assessment techniques and many places to start. The remainder of this Article describes some techniques that may be particularly useful for tax professors.

IV. (RELATIVELY) EASY FORMATIVE ASSESSMENT TECHNIQUES FOR TAX CLASSES

This Part describes a few formative assessment techniques that require relatively low amounts of time and effort to implement in a tax

95. See *infra* Part IV.A.2.a.

96. Exact titles may vary.

class.⁹⁷ Specifically, this Part will discuss using multiple choice and other objective questions, minute papers, and vocabulary lists. For each, this Part will describe the basic technique and some variations thereon, how the technique can be used effectively, and tips for enhancing the learning experience.

Of course, when using any assessment tool (whether formative or summative), consult with your school's disability resource experts to ensure that your assessment tools are (ideally) universally accessible or (at least) adjusted, if needed, to accommodate any students in your class with disabilities.

A. Multiple Choice Questions

Multiple choice questions can be a very useful formative assessment strategy, especially in large classes.⁹⁸ As explained below, multiple choice questions are generally more labor intensive than minute papers or vocabulary lists, but this Part begins with multiple choice questions because they are likely the most familiar to most faculty.

1. Using MC Questions: Starting from the Problem Method

Many tax classes use the problem method, at least to some degree, and this provides an excellent segue into using multiple choice questions for formative assessment. Specifically, an assigned problem can be turned into a multiple choice question relatively easily by posing the question from the book and offering answer choices reflecting the correct answer and the most common wrong answers. Then all students can vote. Thus,

97. It is an overstatement to say that the formative assessment approaches in Part IV are easy and those in Part V are hard. There is more of a continuum based on the particular assessment and the professor's approach thereto. Any of the assessments in Part IV (particularly multiple choice questions) could be made more labor/time-intensive with the frequency of use and with variations that a professor might want to pursue (e.g., written follow-ups, in-person follow-ups, metacognitive components, etc.). And some of the assessments in Part V could be made less time intensive by, for example, relying on students to self-assess using model answers. Nevertheless, the assessment methods in Part IV are generally more discrete, and a faculty member could use them a little bit with limited effort and without going "all in" on more complex or lengthy formative assessments like those described primarily in Part V.

98. See Ramy, *supra* note 6, at 854–56.

rather than calling on one or two students to answer the question through a Socratic dialogue, a professor can use the multiple choice question to gauge the understanding of the entire class.⁹⁹ After the class has voted, the professor can call on one or two students to explain which answer is correct and why, continuing with the Socratic dialogue.

This use of multiple choice questions helps both the professor and the students achieve the goals of formative assessment. Multiple choice questions based on assigned problems enable the professor to assess how prepared all of the students are and how well all of the students understood and applied the material from the reading.¹⁰⁰ This is more comprehensive information than can be obtained by calling on one student, hoping that student's understanding is representative of the class's, and trying to read the faces of all of the other students to confirm. Having a sense of the whole class's understanding helps the professor determine, before engaging in the dialogue, how much time to spend discussing the analysis. This enables her to allocate more time to issues that students find difficult and less time to issues that students already understand.

Using a multiple choice question this way also helps students because each student is forced to commit to a particular answer, and then each student, even in a large class, receives individual feedback.¹⁰¹ Theoretically, this should have the same impact as the more traditional Socratic dialogue, in which students who are not answering aloud should be answering in their heads and then comparing their internal response to the correct response. However, not all students actually do that; students will often just listen passively. Using a multiple choice question to which all students are expected to respond, rather than Socratic dialogue with one or two students, creates a more active learning environment for all students.¹⁰² Every student is expected to answer the multiple

99. *Id.* at 856 (explaining that multiple choice questions, particularly with “audience response systems[,] provide the teacher with objective feedback as to whether the class is, in fact, ‘getting it’”).

100. This is a variation on the “misconception/preconception check” formative assessment approach, but, in this case, assessing students’ misconceptions or preconceptions gained from class preparation rather than assessing the knowledge students bring with them from outside the class. *See* Munro, *supra* note 84, at 242.

101. *See* Ramy, *supra* note 6, at 855–56.

102. *See* Caron & Gely, *supra* note 12, at 561–62.

choice question, so they cannot avoid engagement through the random luck of not getting called upon. Further, once the correct answer is revealed, the student is presented with more salient feedback about how well they know the material than is provided through the traditional Socratic dialogue. That is, a student listening to Socratic dialogue may be overconfident about how they would have answered had they been called upon; indeed, as he listens, he may think he understands even if he actually does not grasp all the material.¹⁰³ But it is much harder to be overconfident if the student selected (b) for a multiple choice question where the correct answer was (e). Thus, using multiple choice questions, rather than just Socratic dialogue when discussing problems, provides all students with objective and personalized feedback about their mastery of the material, which contributes to their learning. Moreover, the impact of feedback on student learning is greater when it is provided promptly after a student's performance,¹⁰⁴ and using multiple choice questions in class makes it easy to provide immediate feedback.

Of course, a professor is unlikely to want to turn every assigned problem into a multiple choice problem, and I would not recommend doing so. This is for several reasons, including (a) the amount of time/effort that would be required, (b) not every problem is a good fit for a multiple choice question,¹⁰⁵ and (c) having the class dominated by so many multiple choice questions could adversely affect the classroom dynamic. However, turning some assigned problems into multiple choice questions can be useful for formative assessment purposes, and the time/effort required to do so could be reduced by (a) converting only one or

103. Cf. Elizabeth Ruiz Frost, *Feedback Distortion: The Shortcomings of Model Answers as Formative Feedback*, 65 J. LEGAL EDUC. 938, 951–52 (2016) (discussing the phenomenon of “perceptual fluency,” in which repeated exposure to terms and concepts can lead to a student “feeling a sense of confidence” that he understands despite lack of “actual, internalized learning”).

104. See SCHWARTZ ET AL., *supra* note 6, at 166 (“Give students prompt feedback. The best feedback is immediate.”).

105. The easiest problems to turn into MC questions are those with clear answers, whether quantitative or qualitative. However, even problems with more ambiguous answers can be turned into MC questions, with answer choices that are phrased conditionally (e.g., if X is true, then Y result) or that ask students to identify which issue is problematic and why (e.g., the answer depends on whether X is true because Z). Then the MC question can be followed up with a discussion about the ambiguous issue and how to analyze it.

two problems (or subparts of problems) to MC questions per class session, (b) collaborating with other professors who use the same book, (c) reusing problems created in prior iterations of the course, and (d) seeing if casebook authors provide multiple choice framings of the problems in the text,¹⁰⁶ among other strategies.

2. Additional Uses for In-Class Multiple Choice Questions

Regardless of whether the problem method is employed in a class, there are a few other, perhaps even more useful, ways to integrate multiple choice (MC) questions into tax classes for formative assessment purposes.¹⁰⁷ The uses of the MC question described in this Part are actually the most common ways I deploy MC questions for formative assessment in my tax classes.

a. Checking Understanding of Material Taught in Class

MC questions can be used to assess how well students have learned material discussed during a unit or class session (as opposed to how well they learned material as a result of the reading). Some professors pose an extra hypothetical at the end of a unit to recap the content or to test students' understanding before moving on. This can be very valuable to solidify student learning, but it can have even greater benefit as formative assessment if the hypothetical is posed via a multiple choice question.

The benefits of using an MC question in this way are similar to those described above: It enables the professor to determine what

106. Some casebooks include formative assessments to accompany the text. For example, Westlaw's Casebook Plus Series includes quizzes and other formative assessments, and this series does include tax books. See West Academic, *CasebookPlus*, <http://faculty-casebookplus.com/titles.asp?ID=16&subject=Taxation#scroll> (last visited Apr. 27, 2019). These and similar resources may help expedite the professor's process for creating multiple choice questions for use to complement the texts used in the course.

107. For a great summary of different uses of in-class multiple choice questions (some of which achieve formative assessment and others of which do not), see Derek Bruff, *Classroom Response Systems ("Clickers")*, VAND. U. CTR. FOR TEACHING, <https://cft.vanderbilt.edu/guides-sub-pages/clickers/> (last visited Apr. 27, 2019) (discussing the use of classroom response systems).

portion of the class understood the lesson just taught. It provides actionable information about whether she might want to spend a few additional minutes right then to clear up any lingering confusion. It engages each student in active learning and provides him with highly salient individual feedback on his understanding. In addition, using an MC question at the end of a unit (rather than at the beginning) gives each student information about whether and to what extent they need to invest more effort on the topic. I find this approach very useful in my classes, and I regularly end units with an MC question to check students' understanding.

b. Preparing Students to Continue Learning Material Started in the Previous Class Session

MC questions can also be used to assess students' recollection of previously taught material. This can be particularly useful if a lesson carries over from one class session to the next. An MC question at the start of the second class, together with a few remarks to situate students in the material, helps to ensure that the students recall where the prior class left off and are ready to move on to the rest of the material.¹⁰⁸ If the MC question reveals confusion or lack of understanding, the professor may want to take a few extra minutes to refresh the last class's coverage before building upon that prior content.

For example, if, when starting to teach section 162, I only covered the *Welch v. Helvering* case¹⁰⁹ in a particular class session, I might start the next class session with an MC question that tests students' understanding of the concepts of "ordinary" and "necessary" before moving on to discuss the definition of "expense." Similarly, in partnership tax, if, when teaching section 704(b), I was only able to cover the primary test for economic effect in a class session, I might start the next class session with an MC question about that test (and the requirement for an unlimited deficit restoration obligation) before moving on to discuss the alternate test for economic effect and qualified income offsets.

108. See SCHWARTZ ET AL., *supra* note 6, at 102–03 (encouraging faculty to start a class by reorienting students to where they are in the material).

109. 290 U.S. 111 (1933).

*c. Gauging Student Recall of Fundamental Concepts
Taught Earlier Before Starting a New Unit That
Builds on Those Concepts*

Similarly, an MC question to assess students' recollection can be particularly valuable to set up a new lesson that builds on a prior topic, perhaps taught several weeks earlier. For example, before I teach characterization, I start with an MC question about basis and determination of gain from the disposition of property (which I typically teach approximately 6–7 weeks earlier). Before I teach about the use of capital losses (i.e., netting capital gains and capital losses and section 1211's limit on use of capital losses), I start with an MC question about whether section 165 allows a loss at all (which I typically teach approximately 3 weeks earlier). And before I teach section 1245 recapture, I start with an MC question about depreciation (which I typically teach approximately 4 weeks earlier). Similarly, in corporate tax, before I teach section 336(d)(2) (regarding recognition of losses upon a liquidating distribution of property previously contributed to a corporation), I start with an MC question about section 362 regarding a corporation's basis in property contributed to it (which I typically teach approximately 3 weeks earlier in a combined corporate and partnership tax class).

A professor will likely want to say a few words about the foundational topic before embarking on a class session about the more advanced topic, so why not use a multiple choice question as part of this? This use of an MC question is better for learning than a quick lecture for the reasons discussed above (i.e., an MC question provides highly salient information to both the professor and each individual student, enabling them to take action to improve learning). In contrast, a brief lecture on the prior topic, while potentially useful, provides little, if any, meaningful information to the professor about students' recollections and does not give the student clear, objective information about his understanding of the earlier material.

In addition, using an MC question covering the foundational material helps both the professor and the students differentiate among different potential sources of student confusion. For example, is a student's confusion about recapture really about the application of section 1245 or is it about their lack of understanding about depreciation and its impact on basis? Clarifying the source of any confusion puts both faculty and students in a better position to overcome it.

3. Tips for Using MC Questions for Formative Assessment

Several strategies can help maximize the efficacy of MC questions for formative assessment purposes.¹¹⁰

a. Be Clear About What You Aim to Assess

It is important to be deliberate about what you are trying to learn from the MC question. For example, do you want to assess students' knowledge of facts or rules, students' ability to apply rules to new facts, students' ability to solve problems (informed, of course, by an understanding of the rules and how they would apply to given facts), and/or some other aspect of student thinking and learning? Draft the MC question accordingly so that it asks students to demonstrate the relevant knowledge or perform the relevant skill.¹¹¹

110. There is a lot of guidance about how to draft MC questions effectively. *See, e.g.*, Susan M. Case & Beth E. Donahue, *Developing High-Quality Multiple-Choice Questions for Assessment in Legal Education*, 58 J. LEGAL ED. 372 (2008); Janet W. Fisher, *Multiple-Choice: Choosing the Best Options for More Effective and Less Frustrating Law School Testing*, 37 CAP. U. L. REV. 119, 125–31 (2008); Thomas M. Haladyna et al., *A Review of Multiple-Choice Item-Writing Guidelines for Classroom Assessment*, 15 APPLIED MEASUREMENT EDUC. 309, 309 (2002). This Article covers only a small subset of that advice but tries to focus on the aspects of the guidance that are likely to be most useful to tax professors. In addition, much of the guidance on multiple choice questions is aimed at questions used for summative assessment but not at ungraded formative assessment. *See, e.g.*, Fisher, *supra*. *But see* Stephen L. Sepinuck, *Using Multiple-Choice Quizzes for Formative Assessment*, in HESS ET AL., *supra* note 6, at 282, 282–83. The discussion herein modifies summative-focused advice as appropriate in light of the theory behind and goals of formative assessment. *See supra* Part II.B.

111. *See* Case & Donahue, *supra* note 110, at 379 (“Each multiple-choice lead-in controls the task demanded of the examinees in answering that question, hopefully assessing a particular skill that is deemed desirable.”). One way to think about this is to consider Bloom’s taxonomy as a guide to determine what level of cognitive process the professor seeks to test, and then design the MC question accordingly. *See* Elizabeth M. Bloom, *Creating Desirable Difficulties: Strategies for Reshaping Teaching and Learning in the Law School Classroom*, 95 U. DET. MERCY L. REV. 115, 141–45 (2018). For more about Bloom’s taxonomy, which is commonly used in the assessment literature to

b. Draft MC Text Carefully

For all parts of the MC question,¹¹² use clear and concise language, and avoid complex sentences, irrelevant information, and ambiguous language.¹¹³ Also, ensure that the question provides clear directions.¹¹⁴ These things may seem obvious, but it is worth mentioning because poorly worded questions can increase student confusion and prevent you from assessing what you hope to assess.

c. Write Plausible Distractors

The wrong answer choices (“distractors”) should be plausible and reflect common analytical errors.¹¹⁵ This provides the professor greater insight into why students are making mistakes, and this gives the professor an opportunity to reinforce the right answer by explaining the analytical errors behind the wrong answers. Similarly, this helps students who answered incorrectly identify, with a high degree of precision, what mistake they made so that they can review that specific material. In addition, the more plausible the wrong answers are, the more likely that a student who selects the right answer really understands the topic and did not merely select the right answer through luck or the process of elimination.

describe a hierarchy of cognitive skills (knowledge, comprehension, application, analysis, synthesis, and evaluation), and for more about the current thinking regarding its applicability to legal education, see SCHWARTZ ET AL., *supra* note 6, at 62–64; Susan Stuart & Ruth Vance, *Bringing a Knife to the Gunfight: The Academically Underprepared Law Student & Legal Education Reform*, 48 VAL. U. L. REV. 41, 50–55 (2013).

112. MC questions generally have three parts: “the *stem* (a scenario or vignette setting up the question), the *lead-in* (the question), and the *options* (answer choices, typically labelled A, B, C, etc.)” Case & Donahue, *supra* note 110, at 374.

113. See *id.* at 378–79; Haladyna et al., *supra* note 110, at 312 (items 8, 11–13, 16).

114. See Haladyna et al., *supra* note 110, at 312 (items 14–17).

115. Case & Donahue, *supra* note 110, at 380–83; Haladyna et al., *supra* note 110, at 312 (items 18 & 30), 317–18.

d. Offer an “I Don’t Know” Choice

If you are using an ungraded MC question in class for formative assessment, include an “I don’t know” answer choice,¹¹⁶ and make it clear that it is okay for students to select that answer if they do not know.¹¹⁷ This contributes to the development of metacognition because it enables students to admit (both to the professor and to themselves) that they do not know the answer.¹¹⁸ For professors, an “I don’t know” option reveals whether there is pervasive confusion or uncertainty about a particular topic, which can inform how the professor discusses the content.¹¹⁹ For

116. I vary the language in what is effectively the “I don’t know” answer choice, trying to use a little bit of humor (e.g., “My coffee hasn’t kicked in yet” or “I’m trying to focus, but spring break starts in three days”) to decrease anxiety for those students who are confused. *Cf.* Haladyna et al., *supra* note 110, at 312 (item 31: “Use humor if it is compatible with the teacher and the learning environment”). The use of an “I don’t know” answer is generally not discussed in the literature regarding the design of multiple choice questions. *But see infra* note 118. However, most of the literature discussing the design and use of MC questions is focused on summative assessment or formative assessment that counts, at least to a small degree, toward students’ grades. *See supra* note 110. In those contexts, an “I don’t know” answer choice would not make sense because it would never earn points for a student. However, for completely ungraded MC questions used purely for formative assessment purposes, an “I don’t know” answer choice can be valuable, as explained herein.

117. *See infra* Part IV.A.3.h.

118. A more nuanced alternative to integrating a metacognitive component into MC questions is to have students respond to the MC question using a “confidence grid,” in which they indicate for each possible answer choice whether they are sure that answer is right, think the answer is right, do not know whether the answer is right or wrong, think the answer is wrong, or are sure the answer is wrong. *See, e.g.,* HOW PEOPLE LEARN, *supra* note 7, at 21 (“The teaching of metacognitive skills should be integrated into the curriculum in a variety of subject areas.”); Niedwiecki, *Teaching, supra*, note 6, at 182–84; Mary Whitehouse et al., *How to Use Multiple Choice Questions for Formative Assessment*, EDUC. CHEMISTRY (Sept. 21, 2017), <https://eic.rsc.org/ideas/how-to-use-multiple-choice-questions-for-formative-assessment/3007976.article>; *supra* Part II.B.1.b (discussing metacognition).

119. I have not been particularly worried that students will vote “I don’t know” in a deliberate effort to slow down the progress of the class. That has never been my experience, but it is, at least theoretically, a risk. If a professor perceives that to be happening in her class, I would encourage her to

students, admitting that they do not know helps them be self-aware about what they need to study so that they can invest more in that topic. It is generally better for students to admit that they do not know than to guess, happen to guess correctly, and then fail to realize that they misunderstand something. And, if a student selected “I don’t know” but was leaning toward the correct answer, the student can reflect on why they lacked the confidence to select the particular answer; this can help them solidify their knowledge of the subject and may also help them build their confidence about their learning where it is appropriate for them to be confident.

Students may not understand the metacognitive rationale for the “I don’t know” answer, and they might not appreciate how to use this information. Thus, professors using this option should consider explaining why the “I don’t know” answer choice is there and how students can use and act on the feedback they get from multiple choice questions.¹²⁰

e. Use an Anonymous Voting Mechanism

Classroom response systems such as TurningPoint Clickers,¹²¹ Poll Everywhere,¹²² or Plickers,¹²³ enable students to vote anonymously on

have a direct conversation with the class to better understand her students and what is going on with them. And she may want to eliminate the “I don’t know” option at least for a while. *See also* SCHWARTZ ET AL., *supra* note 6, at 187–89 (discussing troubleshooting when dealing with unprepared, unmotivated, or disrespectful students).

120. *See* Alleva & Gundlach, *supra* note 39, at 728–29 (“Being explicit about metacognition increases the likelihood that students will take greater responsibility for practicing these skills. . . . This explicitness also helps to demystify the learning process.”); Duhart, *supra* note 3, at 539 (encouraging transparency in teaching, particularly when providing formative assessment opportunities, because it motivates students to engage); Schwartz, *Teaching Law Students*, *supra* note 39, at 487 (describing a course that includes “instruction [explicitly] addressing . . . the overall SRL cycle” as part of teaching students to become self-regulated learners).

121. TURNINGPOINT, <https://www.turningtechnologies.com/turningpoint/> (last visited Apr. 28, 2019).

122. POLL EVERYWHERE, <https://www.polleverywhere.com/> (last visited Apr. 28, 2019).

123. PLICKERS, <https://get.plickers.com/> (last visited Apr. 28, 2019). Plickers have fewer features and can accommodate a narrower range of

MC questions, which is generally better than having students raise their hands to vote on the answer to the MC question.¹²⁴ An anonymous voting mechanism helps ensure that students are making independent decisions about their answers rather than looking around the room and raising their hands at the same time as the “smart” students.¹²⁵ In addition, if a student knows that other students cannot see his response, he may be more likely to answer honestly without fear of judgment from his peers.¹²⁶ Together, these benefits of anonymous voting mechanisms can increase the efficacy of the formative feedback provided because (a) the professor gets a more accurate sense of the class’s understanding because students answer honestly and independently,¹²⁷ and (b) students get better information about their learning because they are making (and getting feedback on) their own choices about the answer rather than relying on others.

question types than TurningPoint or Poll Everywhere, but the Plickers system is completely free and has the benefit of not requiring that students use their phones in class.

124. See Bruff, *supra* note 107; Caron & Gely, *supra* note 12, at 560–61; Ramy, *supra* note 6, at 855–56

125. See Caron & Gely, *supra* note 12, at 560–61.

126. See Bruff, *supra* note 107 (quoting Victor Edmonds, Educational Testing Services, University of California at Berkeley as saying, “[p]utting up your hand in class is pretty complex thing, kind of dangerous, socially and academically. But everyone is willing to give anonymous answers. Everyone is equally involved and the answers are honest. And fast.”).

127. These tools can generally track individual student responses so that a professor can see which students are getting the right answers and which are getting the wrong answers. However, that level of detailed tracking is not necessary for the professor to get feedback on whether the class, as a group, generally understands the issue being assessed. I typically do not track individual performance in large part because I do not count these questions toward my students’ final grades and because data tracking sometimes increases student anxiety. Professors will vary as to what information is most useful and actionable to them. See, e.g., Roger C. Park, *Reflections on Teaching Evidence with an Audience Response System*, 75 BROOK. L. REV. 1315, 1324–25 (2010) (sharing his thinking on using clickers anonymously or with data-gathering enabled).

f. If Students Are Confused, Have Them Talk to Each Other & Then Revote

If an MC question produces a split vote or a lot of “I don’t know,” ask students to talk with one or two of their classmates about the analysis. Then revote. This “Think/Pair/Share”-style exercise¹²⁸ provides opportunities for peer-to-peer learning, through which students can help each other while working on their analyses and ability to articulate their analyses.¹²⁹ In my experience, this approach often results in the majority of students selecting the correct answer on the revote. Then, the professor can have a dialogue with students about why they changed their votes from “I don’t know” or from an incorrect answer to the correct answer.

Sometimes the peer-to-peer dialogue does not improve the results, but if that happens, the professor gets a powerful message that there is something amiss—either (a) that the students are quite confused and really need help, or (b) perhaps that the phrasing or framing of the MC question needs improvement. Of course, an MC question that reveals significant confusion is clearly not what professors hope for, but such a question does put the professor in a good position to take immediate action to improve student learning.

128. 2. *Think-Pair-Share*, NYU, <https://www.nyu.edu/faculty/teaching-and-learning-resources/strategies-for-teaching-with-tech/best-practices-active-learning/active-learning-techniques/techniques-2.html> (last visited Apr. 28, 2019) (describing this teaching technique); see, e.g., Debora L. Thredy & Aaron Dewald, *Re-Conceptualizing Doctrinal Teaching: Blending Online Videos with In-Class Problem-Solving*, 64 J. LEGAL EDUC. 605, 620–21 (2015) (discussing the use of this type of exercise); see also Kenneth R. Swift, *The Seven Principles for Good Practice in [Asynchronous Online] Legal Education*, 44 MITCHELL HAMLINE L. REV. 105, 130–34 (2018) (discussing the benefits of cooperative and collaborative learning).

129. These discussions provide peer feedback, which can assist with “successful information transfer because students are often able to explain newly learned concepts to each other in a way that is simpler and more comprehensible than how their professor might explain it.” Bloom, *supra* note 6, at 246–47. See generally *infra* note 229 (citing resources on the use of peer feedback more generally).

g. Explain Why Answers Are Right or Wrong

After students vote (or discuss and revote, if needed), explain, either yourself or through Socratic dialogue with students, why the correct answer is correct and the wrong answers are wrong.¹³⁰ It is not enough to tell students what the right answer is. A critical part of providing formative feedback is helping students understand why they answered correctly or incorrectly. The more precisely a student can identify the source of their misunderstanding, the easier it is to correct.

h. Emphasize the Formative Goal of the MC Questions

When discussing the right and wrong answers (and why they are right and wrong), reinforce that being wrong is part of learning and these questions are intended to help students learn by helping them to figure out what they know and what they do not.¹³¹ It is important to create a supportive classroom community that encourages, rather than judges, learning.¹³² Whether a student is right or wrong, the key is for the student to use the feedback that the questions and discussions provide. Understanding this can decrease student anxiety and make students more receptive to the learning process you are trying to provide.¹³³

i. Consider Displaying the MC Question Before Class Starts

If you plan to start the class with an MC question to assess recollection of prior material and to help set up the learning for the day, consider displaying the MC question during the passing period before the class begins if possible. If an MC question is on the display before class starts,

130. Sargent & Curcio, *supra* note 28, at 381, 400 (explaining that “[t]he effect [of formative feedback] is greater when the feedback offers an explanation rather than just a correct response” and that an explanation is key to improving performance).

131. It is important to use encouraging and motivating language about learning rather than judgmental language about testing or grading. Bloom, *supra* note 6, at 248–50.

132. See HOW PEOPLE LEARN, *supra* note 7, at 25, 145 (discussing the importance of creating classroom norms that make it okay to ask questions, make mistakes, and get feedback, all as part of learning).

133. See Duhart, *supra* note 6, at 493–94, 508–09.

I find that students cannot help but look at it, think about it, and discuss it with each other. This engages students in the material and helps them be focused on the course material as soon as class begins. This also saves class minutes because students started thinking about the question before the official start of class, meaning that they do not need as much time during the class period to analyze it.

Some may criticize this as sneaky or unfair, but for those concerned about making the most of every minute of class time (as I am), this approach maximizes the use of valuable class minutes, and it gives engaged students something productive to do while they wait for class to begin. If you regularly start class with an MC question (as I do) as part of the introduction to the session, students may come to expect it and may, as they have in my classes, start to arrive a little earlier because they know that a question will be displayed for their consideration.

j. Include MC Questions on the Exam

If you use MC questions in class for formative assessment, it is a good practice to include some MC questions on the exam for summative assessment. Similarly, if you plan to use MC questions on the exam, it is a good practice to use some MC questions throughout the semester.¹³⁴ Using MC questions for formative assessment purposes helps students to learn the material taught, but it also helps students learn how to answer MC questions. If that is a skill taught in the class through formative assessment, it is useful to test that skill as part of summative assessment.¹³⁵ This approach aligns your assessment with your instruction and adheres to the old adage of “test what you teach and teach what you test.”

k. Collaborate & Reuse Questions to Minimize the Burden

Creating multiple choice questions for formative assessment purposes can be time and labor intensive, but the burden can be reduced through collaboration with colleagues.¹³⁶ MC questions can also be

134. See Ramy, *supra* note 6, at 855.

135. Moreover, teaching students how to answer MC questions is good preparation for the bar exam, which includes MC questions. This is true even though tax is not on the bar in most states.

136. See Gerald F. Hess et al., *Fifty Ways to Promote Teaching and Learning*, 67 J. LEGAL EDUC. 696, 721 (2018) (encouraging collaborations among

crowd-sourced from students. Students can be asked to draft MC questions to test their understanding about issues they find challenging, and the professor can provide feedback on the questions created. This, itself, is a formative assessment exercise for students.¹³⁷ In addition, the professor may be able to use some of these questions in future years, though some might need to be modified before use in the classroom.

Generally, MC questions can be reused year after year, so the work required to create the MC questions in one year yields long-lasting benefits, at least in the absence of major tax reform.

These are only some of the many tips that can help professors use MC questions effectively in class for formative assessment. There are many additional resources available for faculty members interested in learning more.¹³⁸

B. Other Objective Questions

There are several other objective questions that can be used in ways similar to those described above for MC questions. Options include true/false, multiple select, and rank ordering questions.¹³⁹

All of these objective questions can be used, in a manner similar to MC questions, to test students' understanding of the assigned problems that they prepared for class, to assess students' grasp of material taught in the prior class session for a lesson that carries over to a second day, and to refresh students' recollection of a much earlier unit that is foundational for a new topic. And the key uses and strategies for

faculty members to “[s]upport[] formative assessment by creating a bank of practices questions . . . exercises, sample answers, score sheets, or rubrics”).

137. See Bloom, *supra* note 111, at 141–45.

138. See *supra* note 110.

139. Wilson Ray Huhn, Formative Assessment in Legal Education: Using Objective-Type Questions to Teach Law (unpublished manuscript) (Mar. 21, 2017), <https://ssrn.com/abstract=2938504>. Matching questions are another common type of objective question that can be used for formative assessment. See Haladyna et al., *supra* note 110, at 324; Huhn, *supra*, at 11–13. I have not, however, found a use for such questions in tax classes, though it is certainly possible.

deploying these objective questions effectively are largely similar to those described above with respect to MC questions.¹⁴⁰

Brief explanations of the additional objective question styles are as follows.

1. True/False

True/false questions need little explanation. These questions make a statement, and students are asked whether the statement is true or false.¹⁴¹ For ungraded in-class formative assessment, consider presenting this question to the class as a multiple choice question where there are three answer choices—true, false, and I don't know. This incorporates a metacognitive element.¹⁴² A fourth answer—"it depends"—can be offered as well if that is appropriate for the question.

For example, in a FIT class session about marginal tax rates, I pose a question along the lines of the following: "If earning another \$1 of income would push Taxpayer into a higher marginal tax bracket, Taxpayer is better off *without* that additional \$1 of income. True, False, or I don't know?"¹⁴³

2. Multiple Select

Multiple select questions, also called "multiple-answer" multiple choice questions (as compared to "single-answer" multiple choice questions), may be less familiar. They are like multiple choice questions, but there can be more than one right answer.¹⁴⁴ When given a multiple select

140. See *supra* Part IV.A.

141. Huhn, *supra* note 139, at 5–6; see also Haladyna et al., *supra* note 110, at 323 (citing research and resources for true/false questions).

142. See *supra* Part IV.A.3.d (discussing the use of "I don't know" to add a metacognitive component to MC questions).

143. I advise students to assume that Taxpayer is a rational actor seeking to maximize her take-home pay.

144. Huhn, *supra* note 139, at 7–11; see Lee J. Cronbach, *An Experimental Comparison of the Multiple True-False and Multiple Multiple-Choice Tests*, 32 J. EDUC. PSYCH. 533, 541 (1941) (concluding there is "little significant difference between" multiple answer multiple choice ("MAMC") and multiple true-false ("MTF") tests); Haladyna et al., *supra* note 110, at 323–24 (discussing multiple true-false questions); Timothy J. Muckle et al., *Investigating the Multiple Answer Multiple Choice Item Format* (unpublished manuscript)

question, students should be instructed to select all correct answers, noting that there may be more than one. For example, a multiple select question in FIT might describe several payments made by a sole proprietor and ask which one *or more* of them is likely to be deductible under section 162. Students are presented with answer choices listing the payments, and students must select all of the payments that are deductible under section 162, without knowing how many right answers there are. And in corporate tax, a multiple select question could describe several features of a financial instrument, and then ask which of the features make it more likely that the instrument will be characterized as equity, rather than as debt, for federal income tax purposes. Students then must select which one *or more* of the listed features weigh in favor of equity treatment.

Multiple select questions can be more challenging for students than multiple choice questions because, with multiple select questions, the number of right answers is unknown to students (possibly 1, 2, 3, 4, or however many answer options are provided), whereas there is only one right answer for a multiple choice question.¹⁴⁵ Thus, the multiple select question is less susceptible to success through process of elimination, meaning that a student who answers correctly likely understands the material.¹⁴⁶ Additionally, students can be partially correct on a multiple select question (e.g., selecting only 2 of 3 right answers, or selecting all 3 right answers and also selecting one incorrect answer), in contrast to multiple choice questions where students are fully right or fully wrong. As a result of these features, multiple select questions may be more revealing than multiple choice questions, providing even more insight to both the students and professor about what the students do and do not understand.

(2011), https://www.researchgate.net/profile/Kirk_Becker/publication/293853718_Investigating_the_multiple_answer_multiple_choice_item_format_Presentation_and_scoring_considerations/links/56bdfbd908aeebba05610244.pdf (“Multiple answer multiple choice” questions are similar to “multiple true/false” questions, in which the respondent is instructed to indicate whether each statement is true or false.).

145. Huhn, *supra* note 139, at 10.

146. *See id.*; *see also* Haladyna et al., *supra* note 110, at 324 (explaining that, by using MTF questions, “the influence of guessing can be reduced” with a large number of options and citing research that “MTF items produced more reliable scores”); Muckle et al., *supra* note 144, at 3 (“MAMC items have often exhibited higher difficulty and discrimination” among students with more or less mastery, thereby increasing the reliability of the assessment.).

3. Rank Ordering

Rank ordering questions ask students to select the correct order of a series of items.¹⁴⁷ For example, these can be used to assess students' knowledge about the order of steps in a multi-step analysis¹⁴⁸ and to gauge students' strategic understanding about what rational taxpayers would most/least prefer in a given situation.¹⁴⁹ Rank ordering questions can be slightly more difficult to administer in class because some anonymous voting tools (e.g., Plickers) do not accommodate these questions and hand voting typically works poorly for such questions. However, Poll Everywhere, for example, can accommodate live responses to rank ordering questions.¹⁵⁰ I rarely use rank ordering questions in tax courses primarily because I have not found them to be more useful than other objective question formats, which I generally find easier to draft and administer. However, some professors may make different judgments about how valuable rank ordering questions are for formative assessment in their classes.¹⁵¹

147. Huhn, *supra* note 139, at 13.

148. For example, a rank ordering question could ask students to rank the following analytical steps in the order in which they should be undertaken: determine whether there is a disposition, determine whether gain/loss is realized, determine whether gain/loss is recognized, and determine the character of gain/loss.

149. For example, students could be given facts involving a taxpayer who contributes appreciated property to a partnership and asked to rank the possible section 704(c) methods (i.e., traditional method, traditional method with curative allocations, or remedial method) from most to least preferred for the taxpayer given the taxpayer's circumstances. Similarly, students could be given facts involving a corporate acquisition and asked to rank structures for a corporate acquisition (e.g., among a direct merger with all stock consideration, a stock purchase with all cash consideration, and a direct merger with all cash consideration) from most to least preferred for tax purposes, again given the stated circumstances.

150. *Ranking Question*, POLL EVERYWHERE, <https://www.pollereverywhere.com/support/articles/create-activities/ranking> (last visited Apr. 28, 2019).

151. In addition to the examples provided in notes 148 and 149, *supra*, rank ordering questions could be used to assess students' understandings of the relative precedential weight of different tax authorities (e.g., ranking the Code, the Treasury Regulations, Revenue Rulings, and Private Letter

Objective questions, while useful for formative assessment, are not good fits for all learning in tax. There are other, more open-ended, methods of formative assessment that can be used with relatively little work for the professor. The rest of this Part provides examples.

C. Minute Papers

“Minute papers,” which are student responses, written in a few minutes, to open-ended questions, can also be a method of formative assessment.¹⁵² The idea behind minute papers is that students take couple of minutes to answer a specific question posed by the instructor. Then the instructor collects, reviews the student answers, and responds (most likely during the next class session).

The precise formative assessment function of minute papers depends on the specific question posed to the students. A few examples illustrate:

The most frequently discussed version of the “minute paper” asks two questions:

- “What is the most important thing you learned during this class?” and
- “What important question remains unanswered?”¹⁵³

Rulings in order from most authoritative to least). Although I rarely use rank ordering questions in tax courses, I do occasionally use rank ordering questions for formative (and summative) assessment in my Financial Basics for Lawyers course to help assess students’ understandings of the relationship between risk and return; for example, I might give students a list of different investments with different risk profiles and ask the students to rank the investments in order from highest expected return to lowest expected return.

152. See Hess et al., *supra* note 136, at 719 (endorsing the use of minute papers “to gather quick, targeted feedback from students about their learning and then to use that feedback to make appropriate teaching choices” and citing ANGELO & CROSS, *supra* note 7, at 148); Lasso, *supra* note 6, at 104; Munro, *supra* note 84, at 242–43; Ramy, *supra* note 6, at 873–76.

153. Lasso, *supra* note 6, at 104 (quoting ANGELO & CROSS, *supra* note 7, at 148); Munro, *supra* note 84, at 242 (same).

Answers to these questions “allow[] the professor to assess whether students are getting the main theme around which the material is based or are meeting learning objectives. It also lets the professor know what students do not understand.”¹⁵⁴

Alternatively, students could be asked a specific question that enables the professor to assess students’ understanding of particular information that was central to the professor’s learning objectives for the day.¹⁵⁵ Examples of possible questions in the tax context include:

- What are the requirements that must be satisfied for a taxpayer to take a business expense deduction under section 162?
- What is the difference between a deduction and a credit?
- What is the difference between outside basis and inside basis?

Minute paper questions can also be used to assess higher level, more analytical or evaluative, thinking.¹⁵⁶ For example, questions could include:

154. Munro, *supra* note 84, at 242.

155. See Ramy, *supra* note 6, at 874–76 (mentioning other uses for minute papers). A slight variation on this use of a minute paper is to do an “all write,” where, rather than calling on an individual student to answer a question that the professor would otherwise pose in class as part of the Socratic dialogue or posing the question as an MC question to the whole class, the professor “ask[s] the question collectively and then [has] all the students write down their answers.” Friedland, *supra* note 3, at 610–11.

156. As with multiple choice questions, you could think about this in terms of Bloom’s taxonomy and ask questions focused on increasing levels of cognitive processing. See *supra* note 111. For example, recalling the requirements for a particular deduction is “knowledge,” explaining how those requirements would apply to a set of unfamiliar facts would be “application,” and more strategic assessments about the value/benefits of different alternatives would be “evaluation.” We, of course, want students to build all of these skills, but it is often useful to start with the most foundational and then very deliberately build up to the more complex. See generally Carlo Magno & Gabriel Sebastian Lizada, *Features of Classroom Formative Assessment*, 6 EDUC. MEASUR. & EVAL. REV. 23, 26 (2015) (discussing scaffolding learning by building from discrete knowledge).

- Why does it matter whether a deduction is above-the-line or below-the-line?
- In today's rate environment, would a rational taxpayer prefer a \$2K tax credit or a \$4K tax deduction? Why?
- If the tax rate applicable to qualified dividends is increased but LTCG tax rates remain unchanged, will section 302 become more or less important? Why?
- Why might partners disagree about which section 704(c) method the partnership should use?

All of those questions enable a professor to assess students' mastery of specific content or concepts. The responses enable the professor to determine both how well students understand the issue posed and where misunderstandings are. This empowers her to address and correct any such misunderstandings as soon as possible (most likely in the next class session).

In addition, students could be asked questions with metacognitive elements¹⁵⁷ such as:

- What was the most difficult part of [x] topic for you?
- What is one topic that we have studied this semester [or this class session] that still confuses you?¹⁵⁸ (And what about it confuses you?)
- Before class, how well *did you think* you had answered the homework questions? Given our class discussion, how well *did you* answer the homework questions? If the answers to these questions differed, why do you think they did?

157. See Allen & Jackson, *supra* note 54, at 18; see also, e.g., SCHWARTZ ET AL., *supra* note 6, at 281–83 (offering sample metacognitive reflection questions, albeit not in the minute paper format); Niedwiecki, *Teaching*, *supra* note 6, at 188–191 (same).

158. Some commentators refer to this type of question as a “muddiest point” assessment. E.g., Ramy, *supra* note 6, at 876–77.

These types of questions give a professor a broader perspective on students' learning, and they ask students to assess on their own learning progress and process. Answers, particularly to the first two meta-cognitive questions, also inform the professor about what issues are of concern to students so that she can revisit those issues and help clear up confusion. And answers to the third question give the professor guidance about whether an additional discussion about or modeling of strategies for learning tax might assist students. For example, if students are missing details when reading the Code, it could be helpful to put the Code on the document camera and show students how you read the Code so as to catch all of the relevant details.

There are many more types of questions that could be posed to students with "minute papers." The opportunities are limited only by the professor's creativity and ability to identify questions that will help the professor assess what she wants to know.

Some tips may help professors use minute papers effectively for formative assessment purposes.

First, whatever question is posed should be discrete enough for the students to answer in the time allotted, and the professor should make sure to allot time reasonably. I most frequently use minute papers at the end of a class session or at the end of a large unit. The class time allocated can be quite brief, but that also means the question must be correspondingly brief. Of course, some of the sample questions listed above will take more time than others, and so the time allotted should be adjusted accordingly.

Second, the professor should consider in what format she would like students to submit their minute papers. I usually ask students to handwrite their responses on blank index cards that I distribute; for longer questions, I will distribute half sheets of paper with the question and space for response. However, other approaches are also available. For example, if the professor uses a robust polling tool such as Poll Everywhere, she could create an open-ended "minute question" for the queue, have students type their answer on their devices, and use the polling tool to collect the responses.¹⁵⁹ Regardless of the method, I encourage minute papers to be anonymous so that students feel they can answer

159. *Open-Ended Question*, POLL EVERYWHERE, <https://www.polleverywhere.com/support/articles/create-activities/open-ended> (last visited Apr. 28, 2019).

honestly;¹⁶⁰ a professor need not know who said what in order to gain insight into how well the class, as a whole, is learning. And students who are struggling can be encouraged to self-identify by following up in office hours or via email.

Third, if the class is quite large and minute papers are used on a regular basis, a TA could be used to assist with reviewing and synthesizing student responses.¹⁶¹ Typically, however, I find that reviewing minute papers is a relatively quick process, even in larger classes, because the questions are discrete and the time students have to write is short.

Fourth, as discussed throughout this Article, the most important thing when using minute papers for formative assessment is what the professor does with the information she learns from the student answers. She should find a way to provide feedback to the students. If students generally answer a discrete question correctly, it is important to tell students what the answer is and to validate that they generally answered correctly. If student answers varied or revealed confusion, it is important to articulate the right answer and clear up any confusion sooner rather than later. If the professor asked a more open-ended question, she should be sure to respond to whatever comments are received. These responses can be done orally, at the beginning of the next class, which is how I typically do it. Responses can also be provided in writing via email or a posting on the course webpage. And if there is a lot of confusion, a professor could respond with an extra in-class MC question or other extra practice problem. The professor could also respond at different points in time—first, in the class after the minute papers, and also later in the course by reviewing the topic when it becomes relevant again. For example, if students express confusion about adjustments to basis (e.g., for depreciation or capital expenditures), the professor could respond in the next class and also reinforce the issue later in the course before talking about characterization of gain. Ultimately, what is important is that the professor responds, in whatever way is appropriate for the circumstances, in order to complete the feedback

160. Minute papers could also be completed out of class and submitted electronically (e.g., via email, or as an assignment submitted through the course's learning management system), but it is more difficult to provide anonymity under these circumstances.

161. See, e.g., Lasso, *supra* note 6, at 104 (using a TA to help identify the most important takeaways from the minute papers). See generally *infra* note 221 (discussing the use of teaching assistants more generally).

loop. In addition, providing an explicit response to minute papers often helps make students feel that the professor is responsive to student needs, which tends to be good for teaching evaluations.

As an aside, I also do a minute paper, usually in the middle of the semester, where I ask students what is working for them in the course and what suggestion(s) they have for improving the course. That is not formative assessment for students, but it does provide useful feedback for me so that I can tailor my teaching to students' needs.¹⁶² On these teaching feedback minute papers, students regularly indicate that they find the multiple choice questions and other formative assessment tools that I use to be very helpful for their learning, and that is one thing that has encouraged me, over the years, to incorporate more and more formative assessment exercises.

D. Vocabulary/Concept Lists

Another relatively easy formative assessment tool involves providing lists (or exercises regarding) key concepts and vocabulary.¹⁶³ At the most basic level, the professor can provide students with a list of the key vocabulary and concepts from each day's class session. I typically post each day's key vocabulary list on the course webpage after that day's class session. This focuses students' attention on the key terms that they should have learned in the session, asks them to assess how well they know the concepts, and encourages them to invest more time (and likely ask more questions) if they do not fully understand the definitions or uses of the terms listed. For example, after the FIT unit regarding gains from dealings in property, I post the following vocabulary list:

- Disposition
- Adjusted basis (also basis, cost basis, carryover basis, step-up basis)

162. Occasionally, students will request things that I am unwilling to do (e.g., distribute my synthesis handouts before students try to do an assignment rather than after). In those situations, I just explain to students the rationale for my decision.

163. See, e.g., Lasso, *supra* note 6, at 102–03 (describing variations on this approach as “focused listing”).

- Amount realized
- Gain
- Loss
- Realize (also realized, realization)
- Recognize (also recognized, recognition, nonrecognition)
- Recourse debt vs. nonrecourse debt¹⁶⁴
- Capital expenditure (introduction to concept—more later)
- Capitalize (also capitalized)

A professor can increase the impact of this formative assessment effort by providing students with an in-class worksheet that lists a few key terms/concepts from a recent unit and having students rate (on a scale of 1 to 5, for example) how well they think they understand the concept.¹⁶⁵ This is more effective because (a) it mandates participation by all students (because it is done in class rather than optionally using material posted on the course webpage), (b) it involves active self-assessment by students, and (c) it provides information to the instructor about student learning (which the instructor does not get if the students are optionally self-assessing on their own time).

Another variation involves asking students to complete a minute paper in which they define one or more key terms, perhaps along with a scale asking students to rate how well they think they understand the concept. This integrates both a substantive formative assessment (i.e., how well does the student actually understand the term/concept)

164. This unit includes *Crane v. Comm'r*, 331 U.S. 1 (1947), and *Comm'r v. Tufts*, 461 U.S. 300 (1983), and it presents the first opportunity my class has to discuss the difference between recourse and nonrecourse debt.

165. This approach is closer to Professor Lasso's "focused listing" assessment because it involves student self-assessment and it provides the professor with information about students' perceptions of their understandings. Lasso, *supra* note 6, at 102–03.

and a metacognitive component (i.e., how self-aware is the student about whether he understands the term/concept).

There are a variety of other formative assessment exercises that a professor could do with lists of key vocabulary/concepts. For example, a much more labor-intensive approach could involve creating an online tool on the course webpage where a student types in his definition of a particular term, receives the professor's definition of the term, and then is asked to describe how well his definition matches up to the professor's definition.¹⁶⁶ I have not gone far with this type of more intensive vocabulary-based formative assessment, but I might one day. It would provide information both about students' understanding of concepts and about how effectively students can self-assess when provided with the correct answer. Where students misunderstood concepts, I could revisit them in class when appropriate, and if students struggled with comparing their answers to correct answers, I could explicitly show students how to do that in class. However, creating such an online tool and reviewing the answers submitted could be quite labor intensive, and professors must judge for themselves whether this is the best use of the time they spend on formative assessment.

V. FORMATIVE ASSESSMENT TECHNIQUES THAT ARE MORE TIME- & WORK-INTENSIVE (WITH WAYS TO REDUCE THE BURDEN)

If a professor is willing to invest additional time and effort, there are many additional opportunities for formative assessment, often in ways that could have greater impact than the techniques described above. This Part discusses formative assessment using in-class exercises, extra review problems (completed outside of class), writing assignments, and midterms. For each, this Part describes the technique (including some variations thereon) and how it can be used effectively to achieve the goals of formative assessment. These formative assessment techniques are generally more time intensive than those described in the prior Part because of time needed to prepare the assessment, class time needed to administer the assessment, and/or time needed to provide feedback on

166. This is merely a very discrete example of self-assessment by comparison to a model answer. See *infra* Parts V.B.2.a & V.C.2.b (discussing the use of self-assessments and model answers in further detail).

the assessment.¹⁶⁷ However, there are ways to reduce the burden, and this Part will discuss some such strategies.

A. In-Class Exercises

In-class exercises can be great tools for formative assessment. The downside, of course, is that the exercises can consume a significant amount of class time. On the other hand, they require virtually no grading time for the professor, although the professor might spend a little bit of additional time after class if she collects any completed written exercises to review. Another benefit of in-class exercises is that they can mix up and energize the learning experience in class if, for example, there is a class session that is particularly long (e.g., because a make-up class hour was added to a class session that was already two hours long) or students seem lethargic at a challenging time during the semester. That is not necessarily about formative assessment, but it does affect the overall student learning experience in class.¹⁶⁸

1. The Wide Range of In-Class Formative Exercises

There are many types of formative exercises that can be integrated into the classroom experience to build both substantive tax mastery and tax-related skills.

Some in-class exercises are merely more extensive versions of the assessments described in Part IV. For example, students could work individually in class to complete a worksheet with several true/false/explain questions¹⁶⁹ or multiple choice/multiple select questions (i.e., in-class ungraded mini-quizzes). Or an in-class exercise could ask students to define several key concepts (i.e., a more extensive version of the key vocabulary minute paper described above, covering several terms). Additionally, a professor can provide students with an extra problem to analyze

167. See *supra* note 97 (discussing the division of assessment techniques between Parts IV and V).

168. See SCHWARTZ ET AL., *supra* note 6, at 16 (“Variety is an important contributor to effective legal education. . .”).

169. True/false/explain questions are like true/false questions but, if the answer is false, the student is asked to explain why the statement is false.

in class,¹⁷⁰ perhaps with a fill-in worksheet that guides students through the analysis step-by-step.¹⁷¹ Or students could be asked to complete an exercise where they do a guided IRAC analysis of a tax issue (e.g., where the professor provides a basic fact pattern on a worksheet that requires students to state the issue, state the rule, provide an argument on one side, provide an argument on the other side, and provide a conclusion).¹⁷² Another example of an in-class exercise for a tax class is a statutory reading exercise, in which students are provided a statute that they have not previously seen and are asked to answer a series of MC or short answer questions about how the statute applies in different factual scenarios. In my FIT class, I used multiple in-class statutory reading exercises to help students assess and build their statutory reading skills. A sample, created based on a problem from the FIT textbook I use, is provided in Appendix A.

In-class exercises also offer the opportunity to engage the students in something more interactive. For example, in my FIT class after we have studied both the definition of income and section 102's gift exclusion, I bring donuts¹⁷³ for the class and ask them to analyze whether the donuts constitute gross income to them. Students are instructed to pair up and discuss both the framework and content of the analysis. Then, we have a discussion as a class, in which students articulate the structure for the analysis (which I then write on the board) and walk

170. Part V.B generally discusses the extra problems that are to be completed outside of class, but they could be completed in class as well.

171. See, e.g., Hillary Burgess & Karen J. Sneddon, *Mad Libs Legal Writing: More Writing with Less Grading*, in HESS ET AL., *supra* note 6, at 197, 198 (describing a version of this idea that can be used outside of legal writing courses).

172. Ramy, *supra* note 6, at 880–85 (describing a similar, albeit more detailed, exercise); see also Lasso, *supra* note 6, at 103 (discussing fill-in answers where students are provided with a “partially completed answer to a previously assigned hypothetical, and allowing students to fill in the blank spaces”). This exercise quickly turns into a writing assignment, for which providing feedback can be challenging and time consuming. See Deborah Maranville, *Modeling and Teacher Feedback to Teach IRAC in Substantive Courses*, in HESS ET AL., *supra* note 6, at 276; see also *infra* Part V.C.2 (discussing strategies for providing effective feedback on written work).

173. I usually teach in the morning, hence the donuts. When I teach in the afternoon, I bring snacks.

through the “income” issue and the “gift exclusion” issue, making arguments and counterarguments on each. I guide the conversation as needed, adding in any important things the students may miss. At the end, I ask students to vote on whether they think the donuts constitute gross income to them. Then, I share my analysis and judgment on the issue with an explanation of my reasoning in order to give students feedback about how their analysis and judgment compare.¹⁷⁴

Another example of an interactive in-class exercise that provides formative feedback is a role play. For example, students could play the role of the tax associate in a mock client meeting or a mock meeting with a corporate colleague and discuss a transaction on which students are providing simulated tax advice. The professor or a guest can play the role of the client or corporate colleague, and this in-class exercise can be used to provide feedback both on students’ mastery of the substantive material that is the subject of the advice and on students’ growing professional communication and tax-advising skills. I do one of these exercises when I teach corporate tax and one when I teach partnership tax,¹⁷⁵ and students seem to think that the exercises are quite helpful.

These are just a few examples of in-class formative assessment exercises. There are countless more.

174. I do a similar in-class exercise at the end of the FIT unit on section 162 by asking students to analyze whether the rapper/singer Nelly (who had a big hit with a song entitled “Grillz”) can take a business expense deduction for the cost of his “grillz” (i.e., gold and jewel-encrusted mouthpieces). *Grillz*, WIKIPEDIA, <https://en.wikipedia.org/wiki/Grillz> (last edited Apr. 12, 2019). “Grillz” was released several years ago, so I ask students to assume, for purposes of the exercise, that Nelly bought the mouthpieces and released the song in the current taxable year. This is a fun and effective, but dated, example, and I am looking for a more current example along the same lines to provide formative feedback on students’ understanding of section 162.

175. See Heather M. Field, *Experiential Learning in a Lecture Class: Exposing Students to the Skill of Giving Useful Tax Advice*, 9 PITT. TAX REV. 43 (2012) (describing two in-class exercises that provide feedback both on substantive material covered by the exercise and on the skill of using tax expertise to provide useful client advice).

2. Providing Formative Feedback with In-Class Exercises

a. In General

Regardless of the details of the in-class exercise, students should be given enough time in class to complete the exercise, and then the professor should discuss the exercise's answers/analysis in class. If students completed a worksheet or otherwise prepared written responses, students could self-assess their responses, or they could switch papers and assess a peer's paper,¹⁷⁶ in each case using the feedback provided orally by the professor. For a more complex written exercise, guidance from a rubric may be provided to assist with the assessment.¹⁷⁷ For role-play/interactive activities, students could be asked guided reflective questions to self-assess their understanding of the material.

As with many other formative assessment strategies discussed herein, in-class exercises achieve the goals of formative assessment because such exercises give students a chance to test their knowledge (and/or skills) and identify their strengths and weaknesses, thereby empowering students to take action to improve their learning. In addition, the professor gains insight into what students have learned through the in-class discussions about the exercise, and she can gain even more insight if she collects and reviews the completed exercises (if the exercise is paper-based).

b. Adding Metacognitive Components

To enhance the learning experience, metacognitive components could be added to any of these exercises.

One option is to add a relatively short metacognitive component at the end of an in-class exercise. For example, the following question could be posed as a minute paper¹⁷⁸ after an exercise:

176. Both self-assessment and peer assessment can be valuable for learning, but each has its challenges. Bloom, *supra* note 6, at 243–47; *see infra* Part V.C.2.b (providing further discussion of these feedback approaches).

177. *See infra* Part V.C.2.a (discussing rubrics).

178. *See supra* Part IV.C.

- If you did not perform as well as you would have liked to, what steps could you take in the future to improve your learning?¹⁷⁹

For a slightly longer metacognitive component, the minute paper could ask the following four questions:

- Before the exercise, how well did you think you had learned the [material/skill being assessed]?
- How well did you do on the exercise?
- How accurately did you self-assess your learning? (That is, how did answer #1 compare to answer #2?)
- If you did not perform as well as you would have liked to (or as well as you predicted you would), what steps could you take in the future to improve your learning?

Alternatively, more extensive metacognitive components can be weaved throughout an entire exercise. For example, with the in-class statutory reading exercises that I do in my FIT class (a sample of which is included as Appendix A), the worksheet asks metacognitive questions along the way. Specifically, the worksheet asked students (a) to rate (on a scale of 1 to 10), before doing the exercise, how well they *thought they would perform* on the exercise; (b) to rate, after doing the exercise, how well they *thought they did perform* on the exercise; and (c) to rate, after we reviewed the answers together, how well they *actually performed* on the exercise. Additionally, the worksheet asked students to rate how confident they were about their answers to each individual question.¹⁸⁰

Given that the metacognitive component of these exercises was very explicit on the worksheet and given that students are often unfamiliar with these types of exercises, I also spent some time explaining

179. This dramatically abbreviates the reflection phase of the self-regulated learning cycle. SCHWARTZ, *EXPERT LEARNING*, supra note 39, at 71–78.

180. Explicitly asking these questions before, during, and after the exercise, and after the feedback carefully walks students through the self-evaluation part of the reflection phase of the self-regulated learning cycle and prepares students for the rest of the reflection. *Id.* at 72–74.

to students how to use this information. I gave them three specific sets of reflection questions to consider:¹⁸¹

- First, I encouraged them to think about their overall predictions about how they would perform and their overall pre-feedback assessment about how they thought they did perform, and compare them to their overall post-feedback assessment about how they did perform. Were their predictions and their assessments reasonably accurate? If not, were they overconfident or under-confident, and why? That is, to what do they attribute that over- or under-confidence? If they were overconfident (which was common), what ended up being more challenging for them than expected? And what strategies might help them respond to those challenges in the future?
- Second, I encouraged them to reflect on the individual questions that they got wrong. Did they have an inkling they were wrong or were they pretty certain that they were correct? If the former, I encouraged them to follow that instinct to guide them toward investing more in topics about which they feel unsure. If the latter, I encouraged them to think about what they were missing that led them to be overconfident about an answer that turned out to be wrong, and I encouraged them to try to use that insight to identify steps that can help them more effectively spot gaps in their knowledge going forward.
- Third, I encouraged them to look back on specific questions about which they were unsure. Did they actually have the right answer for the right reason or was their lack of confidence

181. These questions build on the self-evaluation questions from the exercise itself, ask a little more about self-evaluation, and then walk students through the “attribution” and “adaptation” steps in the reflection phase of the self-regulated learning cycle. *Id.* at 71–78. I walk students through this orally, but it could be done, perhaps better, by providing a self-reflection form posing the specific questions and asking students to respond to each question. There are resources for creating these types of self-regulated learning reflection worksheets, and I have used them to create the ones described herein. *See, e.g.,* SCHWARTZ ET AL., *supra* note 6, at 260–62; Niedwiecki, *Teaching, supra* note 6, at 188–91; Schwartz, *Teaching Law Students, supra* note 39, at 489–91.

appropriate? If the former, what led them to lack confidence? And what could help them to determine when to be more confident in the future? If the latter, I affirmed the value of knowing what you do not know, and I encouraged them to identify steps they could take to improve their learning moving forward.

From a bigger picture perspective, I encouraged them to regularly check in with themselves in this way, for example, when they prepare problems for class or do practice exams, so they can figure out how to allocate their study time most efficiently.

This, as you can see, was a fairly extensive metacognitive component for my in-class statutory reading exercise, but my objective was to enable them to create this type of reflection process for themselves in the future.¹⁸² Walking through this is part of being transparent with students about what I want students to learn and about why I have created the exercise in a particular way.¹⁸³ This guidance increases the chances that students will use the feedback and use it as intended.¹⁸⁴ In addition, providing this type of explanation teaches the skills of metacognition and self-regulated learning,¹⁸⁵ and there is evidence supporting the conclusion that “adding metacognitive strategies [to instruction] maximizes student performance.”¹⁸⁶

182. See HOW PEOPLE LEARN, *supra* note 7, at 18–19, 67 (arguing that this type of post-feedback reflection is part of helping students become expert learners); Niedwiecki, *Teaching*, *supra* note 6, at 191 (similar).

183. See *supra* note 120 (discussing the importance of being explicit and transparent with students, particularly when teaching self-regulated learning skills).

184. See Bloom, *supra* note 6, at 236, 243–45. This type of guided self-reflection is part of helping students learn how to “teach themselves.” See generally Bloom, *supra* note 38.

185. See, e.g., Duhart, *supra* note 6, at 511–12 (encouraging professors to help students create checklists they can use to assess their own learning); see also Schwartz, *Teaching Law Students*, *supra* note 39 (discussing the value of explicitly teaching students to be self-regulated learners).

186. Boyle, *supra* note 39, at 27 (citing a study by Theresa M. Hamlin, *Effects of Learning-Style Strategies and Metacognition on Adults' Achievement*, 15(2) NAT'L F. APPLIED EDUC. RES. J. 3 (2002–03)).

B. Extra (Out of Class) Problems

There are also many formative assessment options outside of the classroom. If you have written or can write any extra problems, they can be used for formative assessment. Extra problems can be used as in-class exercises, as discussed above in Part V.A.1, but there are additional opportunities to provide formative assessment using extra problems that students complete outside of class, which is what this Part discusses. These additional problems give students the opportunity to try to apply their learning to new fact patterns and, assuming that feedback or answers are also provided, to assess their learning and determine what they know and what they need to study or do differently.¹⁸⁷ The process refreshes students' recollections about the material and redirects their attention to parts of the material that they forgot or never fully learned. And, at least in some cases, extra problems can provide the professor with actionable information about student learning.

1. Formative Uses for Extra Problems

There are different ways to use extra review problems for formative assessment purposes. The exact approach depends on the professor's goal.

To assess and reinforce student learning on particular issues, extra problems can be focused on discrete topics. This may be part of a professor's response to minute papers about confusing topics.¹⁸⁸ Those minute-paper responses usually provide the topics for the topic-specific extra problems that I provide. Conveniently, the confusing topics remain pretty stable from year to year, so I tend to reuse these problems from prior years, updating them for changes in coverage for a particular class or, more recently, for changes in law. For example, refresher problems for my FIT course covered basis, liabilities, and gains from dealings in property; depreciation; business and personal deductions (including limits on deductions such as section 469); and characterization.¹⁸⁹ And in corporate and partnership tax, where many topics are challenging, I have

187. See, e.g., Lasso, *supra* note 6, at 99–100.

188. See *supra* Part IV.C.

189. If you would like copies of my topic-specific review problems, please email me, as I would be happy to share them.

developed a bank of extra questions, and I now have an extra review problem for most major events in the business lifecycle.

To provide students with an opportunity to synthesize material and put different parts of the course together, an extra problem can cover several different topics. For example, in my FIT course, I assign one big overview problem about three-quarters of the way through the course. And in my business tax course, I assign two big overview problems, one at the end of our study of Subchapter K and one at the end of our study of Subchapter C.¹⁹⁰ As with other formative assessment tools, these problems can be reused year after year, modified to adjust for class coverage and changes in law, and problems can be shared with colleagues in order to reduce the burden of creating such problems.¹⁹¹ In addition, a professor might be able to find a pre-prepared problem and use that as a starting place, modifying it for the particular course. For example, the teacher's manual for the FIT book that I use very helpfully provides a sample overview problem,¹⁹² which I modify somewhat given my FIT course coverage. And some casebooks provide extra problems for formative assessment purposes.¹⁹³

Whatever the details of the extra problems, metacognitive components could be added as well, using approaches similar to those discussed above.¹⁹⁴

2. Strategies for Providing Feedback

There are a variety of different ways to administer these extra review problems, whether topic-specific or more comprehensive, as part of a plan for formative assessment. Different approaches involve different amounts of time and effort and can, not surprisingly, have different amounts of impact on student learning.

190. Again, I would be happy to share my overview problems.

191. See *supra* note 136 and accompanying text.

192. JAMES J. FREELAND ET AL., *TEACHER'S MANUAL: FUNDAMENTALS OF FEDERAL INCOME TAXATION CASES AND MATERIALS* 5–17 (19th ed. 2018) (with answers).

193. See *supra* note 106.

194. See Part V.A.2.b (discussing integration of metacognitive components into in-class exercises).

a. *Self-Assessment Using Model Answers*

The least time-intensive approach to using extra problems for formative assessment is to write the problems and then post the problems and answers on the course webpage. Thus, students can do the problems and get formative feedback by self-assessing their work with reference to model answers.¹⁹⁵ This is the approach I take when I provide extra topic-specific review questions. I typically post the problems on my course webpage, and I post the answers a week after posting the problem. Posting answers separately and later in time gives diligent students the chance to work through the problem before evaluating their learning through comparison to the model answer. This approach involves no class time and no grading or feedback time. It requires only preparation time—the time it takes to write and post the problems and answers. And as noted above, problems can often be reused from year to year, which reduces the preparation time in subsequent years.

However, the limited time allocated comes at a cost. Specifically, the problems provide formative feedback only for those students who voluntarily complete the refresher problems. The efficacy of this approach also depends on how well students can evaluate their own learning using a model answer. Some can do this effectively, but using a model answer to self-assess is harder for others, reducing the formative benefit for those students.¹⁹⁶ Generally, the more discrete the issues and the more objective the answers, the easier it is likely to be for students to self-assess effectively.¹⁹⁷ My discrete review problems typically have clear right and wrong answers, so student self-assessment works reasonably well; these problems focus more on issue identification, knowledge of the rule, and ability to apply the rule to a set of facts where the result is clear cut. Nevertheless, to assist students with weaker self-assessment skills or to assist all students to self-assess their performance on problems that are less clear-cut, a rubric or self-assessment assignment could be provided along with the model answer to help guide students through the process of comparing their answer to the model

195. See Frost, *supra* note 103 (exploring, in greater detail, the use of model answers for providing formative feedback); Joi Montiel, *Empower the Student, Liberate the Professor: Self-Assessment by Comparative Analysis*, 39 S. ILL. U. L.J. 249 (2015) (same).

196. See Frost, *supra* note 103, at 947–52, 954–58.

197. See *id.* at 956–57; Ramy, *supra* note 6, at 862.

and to help them identify strengths, weaknesses, and next steps that could help them improve.¹⁹⁸

Even if all students use the model answer effectively to further their own learning, using a model answer to provide feedback to students provides the professor with little (or no) information about student learning. Students do the problems and assess their performance on their own, and unless the student poses a question to the professor about the problem, the professor does not learn anything in this process about student learning. This is a significant drawback of asking students to use model answers to self-assess. Nevertheless, posting refresher problems and answers can provide useful formative feedback for the students who do the problems and reflect effectively on how their answers compare to the model answers. In addition, a professor could mitigate this drawback at least to some degree by asking each student to complete and submit a self-assessment assignment.¹⁹⁹ Then, a review of the submitted self-assessments can give the professor some insight into student learning (or at least into how the students assess their learning), on which the professor can act if warranted.

b. Assessment by Computer

Another option is that review problems (or portions thereof) could be turned into online multiple choice quizzes.²⁰⁰ An online quiz could provide students with the correct answer (and, ideally, an explanation of why the correct answer is correct and why the wrong answers are wrong) so students can check their work immediately.²⁰¹ This does, again,

198. See, e.g., Bloom, *supra* note 6, at 241–43; Montiel, *supra* note 195, at 252–54, 262–70. Other options are available for supplementing model answers to improve the efficacy of the feedback provided. See, e.g., Frost, *supra* note 103, at 960–65 (describing some other, generally more time-intensive, approaches); see also *infra* Part V.C.2.b (discussing self-assessment further).

199. See, e.g., Montiel, *supra* note 195, at 257 (describing an approach where students submit their self-assessment assignments and then meet with the professor to discuss).

200. See, e.g., Lasso, *supra* note 6, at 96–97, 100–01 (discussing computerized quiz-style assessments); see also CALI QUIZWRIGHT, <https://www.cali.org/quizwright/?u=login> (last visited Apr. 28, 2019) (a tool to help professors create online quizzes that can be used for formative assessment).

201. See Swift, *supra* note 128, at 145–49 (describing the use of such questions for formative feedback in an online course).

require students to self-assess by comparing their answer to the answer provided, but if the problem can be parsed into discrete parts with objective-style questions, the feedback the student receives could be clear and reasonably easy to internalize.

To increase the potential impact of the formative assessment for students, students could be required to complete the quizzes as part of fulfilling the course requirements, meaning that benefits of the formative assessment would inure (at least to some degree) to all students and not solely the students who did the extra problems voluntarily. In addition, students who answer incorrectly could be asked to reflect and then briefly explain what led them to select the wrong answer choice, which would promote self-regulated learning.

Using a computerized quiz approach to administering extra problems for formative assessment also provides information to the professor. The online learning management system²⁰² administering the questions should be able to compile the results for review by the professor, enabling her to learn more about what the students know and do not know, thereby making this information actionable.

This approach requires more work and out-of-class time: to write the problems, to set up the online quiz, and to review the results of the quizzes to inform future teaching. At some schools, educational/informational technology staff may be able to assist with setting up the online quizzes after the questions are written, and there are some off-the-shelf quizzes (e.g., questions associated with CALI lessons)²⁰³ that a professor can use if they are good fits for the professor's class. And, depending on the learning management system, quizzes created in one year may be able to be imported into the course webpage for a subsequent year's class.

c. In-Class Review

Another option is to assign students to prepare extra problem as homework and then review the problem in class. Obviously, this approach consumes more class time than the approaches to extra problems described above, but it does not require the professor to spend any time creating online quizzes or similar tools, which may be a big benefit for

202. Common examples include Canvas and Blackboard.

203. *Lessons by Subject Outline: Tax Law*, CALI, <https://www.cali.org/content/lessons-subject-outline-tax-law> (last visited Apr. 28, 2019).

those who are less savvy with the quiz functionality of their learning management system. In addition, this approach may be a better fit for concepts that are difficult to boil down to objective-style questions (e.g., where the key to success is less about identifying and applying the applicable technical tax rule to reach a specific clear-cut answer and more about effectively using the facts and the applicable legal standard to make arguments on both sides of an issue). Moreover, students can learn a lot about the progress of their learning through the process of going through a review problem in class. This may be particularly helpful for students (a) who might not do optional problems on their own or (b) who are not adept at using model answers to evaluate their own work. In addition, discussing an extra problem in class can enable the faculty member to also learn a fair bit about what students have learned and what they have not, and the faculty member can review content as needed, in the moment, when going over the problem in class.

This is the approach I take when I provide big picture overview problems in my classes (i.e., once per semester in FIT and twice per semester in business tax). Students seem to really value the opportunity to put the pieces of the class together and the chance to identify (and then fill) gaps in their knowledge. And the class discussion gives me a reasonably good sense about what students have learned, and I pause to review topics with which students struggled.

d. Individualized Feedback on Written Work

The most time intensive approach to using review problems for formative assessment is to turn them into writing assignments, where students are required to write up the answers in an essay format and where the professor then provides individualized feedback on the submissions. The next Part discusses the use of writing assignments for formative assessment and strategies for doing so efficiently and effectively.

C. Writing Assignments

The formative assessment strategies mentioned above generally focus on assessing students' substantive knowledge, ability to analyze the tax consequences of a new fact pattern, and in some cases, tax-related skills (e.g., statutory reading, client advising). If, however, written essay assignments are used for formative assessment, students can also get feedback on their ability to articulate their tax analysis in writing, which is a critically important skill.

This feedback can be very valuable for student learning, but professors often (understandably) find the idea of providing this feedback to be very daunting, especially in large classes. Moreover, for many tax classes, the key learning objectives relate to students' ability to apply the technical tax rules, and not to students' legal writing abilities. In these cases, the formative assessment strategies discussed earlier may be sufficient to help students advance the learning objectives, and using writing assignments may not be a good fit. Of course, it is always valuable for students to work on their legal writing, and tax writing assignments do provide professors (and thus students) with a great insight into where the students' tax learning gaps might be. Ultimately, each individual tax professor will have to decide whether this formative assessment technique is the most effective and efficient way to advance student learning in the particular class. For those that want to use writing assignments as formative assessment in tax classes, this Part offers some suggestions for doing so effectively.²⁰⁴

1. Using Writing Assignments for Formative Assessment

Written homework assignments are also commonly used for formative assessment, but the types of assignments can vary.²⁰⁵

A common approach is to give students an extra problem, and ask them not only to analyze it, but also to write up the answer in a paragraph or essay and submit their response. That adds a writing component to a discrete review problem or a multi-issue overview problem,²⁰⁶ and this could be akin to an untimed take-home midterm²⁰⁷ that does not affect (or only minimally affects) students' final grades. Asking students to write up the analysis of a review problem, as opposed to merely providing a review problem and answer to which the student can compare his work (i.e., as discussed above), provides more opportunities to improve student learning. These types of written assignments provide

204. Also, it can be helpful to consult with colleagues who teach legal writing, as they likely have great insights, ideas, and additional resources. You may even find a collaboration partner.

205. This is, of course, common in legal writing classes. But there are also examples of this in doctrinal classes. *See, e.g.*, Colker et al., *supra* note 72 (Constitutional Law); Sargent & Curcio, *supra* note 28 (Evidence).

206. *See supra* Part V.B.1.

207. *See infra* Part V.D.

insight for both students and the professor into a variety of competencies, including students' issue spotting skills, substantive mastery, analytical skills, and writing skills.

A more focused writing assignment could involve asking students to write up the analysis of a problem *previously* discussed in class. For example, students could be asked to write up the analysis for an MC question discussed in class or to write up the analysis for an in-class exercise discussed in class. In my FIT class after the in-class "donut" exercise,²⁰⁸ I ask students to write up their analysis in no more than 500 words. The narrowed scope of this type of writing assignment makes it easier to isolate the source of a student's problem. Because the class discussion already identified the issue(s), articulated the rules, and made the arguments, the focus is on assessing students' ability to articulate the analysis in writing.²⁰⁹ In my experience, this type of assignment is very revealing: It shows which students have grammar and other writing problems. It shows which students have organizational problems (even though I wrote an outline of the appropriate organization on the board during the class discussion). It shows which students are still struggling with tax vocabulary or rule articulation (despite the fact that the correct vocabulary was used and the right rules were articulated in class). It shows which students are not making effective legal arguments in writing, which typically occurs (a) because they fail to use an IRAC structure for the discussion or (b) because they struggle with articulating analytical arguments that use the facts and tie those facts to the applicable legal standard. And it shows, more generally, which students are having a hard time translating what they hear in class into actual learning. Thus, in addition to providing an opportunity for feedback on the tax-specific content of the assignment, it enables the identification of students demonstrating a variety of problems that may lead to challenges in law school more broadly. These students can be referred to whatever appropriate resources your school may have for additional support. At my institution, I typically refer these students either to Academic Support (for problems with organizing, making legal arguments, and learning from class) or the Legal Writing Center (for English writing or

208. See *supra* text associated with notes 173–174.

209. I also allow and encourage students to confer with each other about the analysis, but I require each student to write up their own answer in order to assess each student's writing skills individually.

grammar problems). I have seen students make significant strides as a result of these referrals.

Ultimately, there are also other uses for formative written assignments, but regardless of the design of the assignment, it should, as mentioned above, be relatively low stakes to help students experience the assignment as a tool for furthering their learning rather than as a tool for grading or ranking them.²¹⁰ For example, the assignments could be marked on a check/check-plus/check-minus basis. Or everyone could earn “credit” for the assignment as long as they put forth a good faith effort. I generally use this latter approach, but for particularly weak assignments, I require the student to rewrite the assignment in order to earn credit. The low-stakes approach also reduces the likelihood of student unhappiness about grades they receive during the semester.

As with the in-class exercises and extra problems, any writing assignment can be modified to add metacognitive components.²¹¹

2. *Strategies for Providing Feedback*

One of the biggest challenges with using written assignments for formative assessment is, of course, the time and effort required to provide feedback. It can be harder and more time-consuming to provide feedback on writing assignments than on other formative assessments, because (a) there are so many things on which to provide feedback—not just issue spotting and technical tax analysis, but also writing; (b) student responses are likely to be much more wide-ranging on writing assignments than on more discrete assessments, meaning that feedback requires more individualization, which takes more time; (c) feedback on writing assignments requires many more judgment calls as compared to feedback on assessments with more objective answers, and judgment calls also take time; and (d) student expectations with respect to feedback on written work can be quite high, particularly if the student has put a lot of time and effort into the assignment. These challenges and more make instructors understandably wary of using writing assignments for formative assessment particularly in large classes. But these feedback challenges can be mitigated, at least to some degree.

210. See *supra* note 28.

211. See *supra* Part V.A.2.b.

a. Professor-Provided Feedback

The most time-intensive way is for the professor to provide individualized written feedback on each paper that explains where students went wrong and how they could improve. This can be quite effective,²¹² especially if the professor provides an explanation about *why* something is right or wrong (rather than just indicating *whether* it is right or wrong) and if the professor is as specific as possible about the weaknesses (and strengths) of the answer.²¹³ This approach may be even more effective (but also more time-consuming) if the professor meets individually with each student to discuss the feedback.

The process of providing individualized feedback can be made slightly easier through the use of a rubric. Rubrics are “sets of detailed written criteria used to assess student performance.”²¹⁴ They can be effective tools for giving feedback because they list important characteristics of good work (e.g., application of law to facts) and a range of levels of performance on each measure (e.g., describing what highly proficient, proficient, acceptable, and unacceptable work would be for each aspect of the work).²¹⁵ A professor could complete a rubric form for each student’s submission, marking how the student performed on each assessed feature, without providing detailed written feedback on the assignment itself.²¹⁶

212. See, e.g., Colker et al., *supra* note 72; Schwarcz & Farganis, *supra* note 67; see also *supra* Part III.C.

213. Colker et al., *supra* note 72 at 422; see also Paula J. Manning, *Understanding the Impact of Inadequate Feedback: A Means to Reduce Law Student Psychological Distress, Increase Motivation, and Improve Learning Outcomes*, 43 CUMB L. REV. 225, 245–55 (2013) (discussing what makes for effective feedback).

214. Sophie M. Sparrow, *Describing the Ball: Improve Teaching by Using Rubrics—Explicit Grading Criteria*, 2004 MICH. ST. L. REV. 1, 7. See generally Heidi Goodrich Andrade, *Teaching With Rubrics: The Good, the Bad, and the Ugly*, 53 C. TEACHING 27 (2005) (outside the law school context); Bloom, *supra* note 6, at 241–43 (discussing the use of rubrics); Duncan, *supra* note 5, at 479n.80 (citing resources about rubrics); Ramy, *supra* note 6, at 857–62.

215. See Sparrow, *supra* note 214, at 7, 38–55 (including examples of rubrics); Fruehwald, *supra* note 39, at 117.

216. See Ramy, *supra* note 6, at 857–62. Often a rubric is used together with individualized feedback, and the rubric is primarily used to make

A much less time-intensive option is for the professor to provide feedback to the group (rather than to individuals) by discussing the assignment in class,²¹⁷ “emphasiz[ing] the various ways in which the students could have analyzed the problem.”²¹⁸ A variation on this is to provide feedback to the group by providing detailed feedback on one student volunteer’s writing assignment “live” in front of the class to show your analysis of a real example.²¹⁹ Neither of these approaches is likely to be quite as effective as detailed written feedback or individualized rubric scores (except for the student volunteer in the live grading approach, who does get individualized feedback), but these approaches do still provide some feedback that students can use to improve.²²⁰

b. Feedback from Teaching Assistants & the Students Themselves (Using Rubrics & Other Resources)

Another strategy for providing formative feedback on written work without imposing huge demands on the professor’s time is to leverage the other participants in the course—teaching assistants, and to a lesser degree, the students themselves.

Teaching assistants can be employed to provide feedback to students on written work.²²¹ Especially if the TA is given clear criteria for assessment and feedback (e.g., with strong and detailed rubrics),²²² TAs can often give consistent and appropriate feedback to students, which

the feedback process a little easier and to ensure consistency in feedback across students. However, a rubric can also be used alone.

217. Perhaps the professor would also want to at least see the students’ written work to confirm that each student produced something that appeared to demonstrate a good faith effort. *See* Duhart, *supra* note 3, at 537.

218. Boyle, *supra* note 39, at 20; *see id.* at 19–20 (discussing in class a writing exercise done in a doctrinal course).

219. HESS ET AL., *supra* note 6, at 184 (discussing “live grading”).

220. *See id.*; *see also supra* Part V.B.2.c (discussing in-class review of extra problems).

221. *See, e.g.,* Lasso, *supra* note 6, at 95, 99–100 (TAs can review student answers to hypotheticals); Ramy, *supra* note 6, at 865–72 (discussing the use of TAs). *See generally* Jay M. Feinman, *Teaching Assistants*, 41 J. LEGAL EDUC. 269 (1991).

222. *See supra* notes 214–215 and associated text.

saves time for the professor.²²³ Although rubrics can also be used to enable students to provide self- and peer-assessment, TAs likely provide better feedback on written work because the TAs are hand-selected by the professor (likely taking into account prior success in the relevant tax class) and are (presumably) carefully trained by the professor.²²⁴ Nevertheless, even with the best TAs, the professor will likely still want to review the TA's assessments for quality control, at least until the professor is confident enough in the TA's abilities. However, using a TA to provide feedback on written work can still save the professor time because the professor's time commitment (after creating the rubric and training the TA) can be limited to quality control of the TA's feedback and also possibly to commenting on the assignments of the weakest students, as identified by the TA. More generally, TAs can be quite helpful because they are much closer to the students in experience than are professors, so they may be able to explain concepts to students in a very accessible way.²²⁵ In addition, TAs can also provide the professor with a sense of the mood among students and candid feedback about how the course is going.²²⁶

It is also possible to use rubrics to enable students to self-assess their written work or to provide peer-assessments of written work.²²⁷ However, self-assessment²²⁸ and peer-assessment²²⁹ can be inconsistent, especially when the assessment is of written analyses where the answers are not clear, and especially given that students may not have strong self-assessment skills. Nevertheless, there are a few tools to make self-/

223. See, e.g., Duhart, *supra* note 3, at 538; Duhart, *supra* note 6, at 513–14.

224. See Ramy, *supra* note 6, at 866, 871–72 (discussing TA training).

225. See *id.* at 866.

226. The one time I experimented with using a TA to assist with the provision of formative feedback on writing assignments of tax students, I found this to be a particularly valuable benefit.

227. See Duhart, *supra* note 3, at 538; Bloom, *supra* note 6, at 241–42.

228. See Lasso, *supra* note 6, at 96–97; Ramy, *supra* note 6, at 862. See generally Frost, *supra* note 103; Montiel, *supra* note 195.

229. See Cassandra L. Hill, *Peer Editing: A Comprehensive Pedagogical Approach to Maximize Assessment Opportunities, Integrate Collaborative Learning, and Achieve Desired Outcomes*, 11 NEV. L.J. 667 (2011) (discussing effective use of peer feedback and editing on written work); Ramy, *supra* note 6, at 863–65. See generally Noble, *supra* note 35.

peer-assessment with a rubric and model answer more effective. One option is to provide annotated model answers, including not only a strong answer but also an ineffective answer so that students can have an opportunity to compare the answers and gain insight into why one is better than another.²³⁰ This, in turn, may help the student more effectively assess his own or a peer's written work. Another option is to provide the assessor with a step-by-step guide for providing feedback (e.g., a set of specific questions to answer).²³¹ This approach has been described as a technique that "liberates the professor from our labor-intensive assessment techniques, and empowers the student with the understanding of what it takes to improve."²³² However, even with a detailed feedback checklist, a professor or TA might still want to review the student-provided feedback to ensure that it appears appropriate.²³³ A third is to use the self-/peer-assessment as a precursor to a meeting with the professor.²³⁴ This option is clearly more time intensive than pure self- or peer-assessment, but having the student self-assess before the meeting may help expedite the meeting by focusing the conversation on identified areas of weakness.²³⁵ In addition, this has a valuable metacognitive

230. See, e.g., Bloom, *supra* note 6, at 243; Frost, *supra* note 103, at 963–64.

231. Montiel, *supra* note 195, at 253–58 (describing "Self-Assessment by Comparative Analysis" using a self-assessment assignment that "methodically guides the student through the [assessment] process" for the particular memo); see also Hill, *supra* note 229, at 689–90 (using a "peer-editing checklist").

232. Montiel, *supra* note 195, at 274.

233. See Sargent & Curcio, *supra* note 28, at 386 (commenting that, even with great resources, students may not be effective at self-assessment).

234. This is what I do in my seminar. I provide students with a detailed peer-assessment form, asking each student to answer all of the questions about their peer's draft seminar paper. Then, I ask them to reflect on the comments they gave to their peers and self-assess the strengths and weaknesses of their own papers, after which I meet with each student to discuss the peer feedback they received, their self-assessment, and my individualized feedback. Of course, this would be much more time-consuming to do in a large doctrinal tax class, and I have never tried doing this in a large class.

235. Bloom, *supra* note 38, at 341; see also Niedwiecki, *Teaching*, *supra* note 6, at 192. Niedwiecki suggests a more involved process, in which the student does the assignment, self-assesses, receives individualized

component because the students get feedback on their ability to assess their own work, which can have long-lasting benefits.²³⁶ Other options may also be available to increase the efficacy of student-provided feedback. Even if none of these methods is employed to provide direct feedback, merely providing the rubric to students still has some inherent value because, at the very least, the rubric articulates for students “explicit guideposts about instructor expectations,”²³⁷ and understanding the expectations is part of figuring out how to meet them.

3. Getting Students to Use the Feedback

Particularly if a professor is going to invest the time to provide individualized written feedback on the written assignments, another challenge is ensuring that the students review and use the feedback provided.²³⁸ Investing a lot of time providing detailed individualized feedback is not worthwhile if the feedback goes unused.²³⁹

One strategy to increase student engagement with the feedback is to require rewrites from students whose work needs improvement.²⁴⁰ Another strategy is to require students to complete a post-assessment assignment that requires them to reflect on the feedback.²⁴¹ For example,

feedback from the professor, compares the professor’s feedback to the student’s self-assessment to identify and explain differences, and then meets with the professor. *Id.* at 188–92. This, of course, is actually more work than merely providing individualized feedback, but it is likely quite impactful.

236. Bloom, *supra* note 38, at 341–43.

237. Duhart, *supra* note 3, at 537.

238. Bloom, *supra* note 6; Duhart, *supra* note 3, at 538–41; Sargent & Curcio, *supra* note 28, at 380 & n.8.

239. This could be an issue with extra problems and other formative assessments as well, but generally, those assessment approaches are either less time-intensive for the professor or already provide a method for ensuring that the student at least sees or hears the feedback by virtue of the assessment’s design (e.g., it is done in class). Thus, there is less need to devise a strategy for getting students to engage with the feedback.

240. See Bloom, *supra* note 6, at 255; Frost, *supra* note 103, at 962.

241. Bloom discusses a similar approach, using a “Using Feedback Effectively” form that guides student self-assessment in light of the feedback. Bloom, *supra* note 6, at 257; see also Niedwiecki, *Teaching*, *supra* note 6, at 189–92 (requiring students complete a post-feedback assessment).

students could be asked, “Given the feedback you received on your written assignment, please identify two strengths in your written assignment and two ways in which you could improve in the future.”²⁴² This adds a metacognitive element at the end of the assignment,²⁴³ which helps students become self-regulated learners. And importantly, it ensures that all students look at the feedback at least briefly. To enhance both substantive learning and metacognitive development, a more extensive reflection assignment could also be required.²⁴⁴

These approaches do not necessarily require much additional time from the professor. She could merely review the assignments cursorily to confirm that the students demonstrated a good faith effort to complete them. Or she could even ask a TA to review the post-assessment assignments for the same purpose. However, for maximum impact (especially if part of the goal is to develop metacognition), a professor may want to meet with each student individually to discuss

242. There are a variety of specific reflection questions that could be asked. Another alternative is, “Given the feedback you received, what is one thing you want to work on for the future, and what steps can you take to do so?” See Sargent & Curcio, *supra* note 28, at 404–05 (providing examples of self-reflective questions that can help students determine how to take action based on feedback received on a midterm).

243. See Niedwiecki, *Teaching*, *supra* note 6, at 189–91. Metacognitive elements could be added to the rest of the assignment too. For example, when submitting the assignment, students could also be asked to respond briefly to reflection questions (e.g., What skills/substance do you think this assignment tested? On what aspects of this assignment did you feel confident? What was the most difficult part of this assignment?). See *id.*; see also *supra* Part V.A.2.b (discussing different approaches for integrating metacognitive elements into in-class exercises).

244. See, e.g., Niedwiecki, *Teaching*, *supra* note 6, at 189–91 (requiring students to compare their self-assessment with the instructor’s assessment and evaluate where and why there are differences); Katherine M. Sauer & William G. Mertens, *The Test Assessment Questionnaire: A Tool for Student Self-Assessment After the Midterm Exam*, J. ECON. & ECON. EDUC. RES., vol. 14 no. 2, 2012, at 93 (guiding students through process of reflection on exam performance to help students understand source of errors and strategize for improvement, and providing an example of a “test assessment questionnaire,” which could be modified to be a post-assignment questionnaire rather than post-test questionnaire).

the feedback and the student's reflection thereon.²⁴⁵ Many professors will lack the capacity to do this, but even a small step, such as requiring students to answer one reflection question about the feedback received, can help ensure that students engage with the feedback at least to some degree.

Of course, while it is important that the students use the feedback, it also remains important for the professor to use what she learns from the assignments to adjust her teaching as needed.

D. Midterms

Midterms, while often largely summative, are also useful as tools for formative assessment.²⁴⁶ When used for formative purposes, midterms are quite similar to the in-class exercises described in Part V.A or the written assignments described in Part V.C, but administered under testing conditions and with a grading component. Thus, the strategies for providing effective feedback, discussed above, are equally relevant for formative midterms. In addition, if the goal of a midterm is primarily formative assessment, it is particularly important to frame the midterm as an opportunity to help students learn and not just as an opportunity for the professor to judge what each student knows. Among other things, this means giving each student not just a score but also meaningful feedback about their individual performance and about how they can improve.²⁴⁷ And any grade component should be relatively low-stakes.²⁴⁸ As with written homework assignments, the

245. Niedwiecki, *Teaching*, *supra* note 6, at 191–92 (describing such an approach as part of teaching metacognition).

246. *See, e.g.*, Lasso, *supra* note 6, at 106 (describing midterms as useful for formative purposes “because they motivate students to improve their learning and performance in future summative assessments”); Ramy, *supra* note 6, at 871 (describing a professor who uses midterms for both summative and formative purposes); Sargent & Curcio, *supra* note 28 (using a graded midterm as part of formative assessment).

247. *See, e.g.*, Lasso, *supra* note 6, at 106 (explaining that he meets with students after the midterm “to discuss their performance and how to improve it”).

248. *See supra* note 28.

midterm could be graded on a check/check-plus/check-minus basis, could be graded with that grade only counting for a small portion of the final course grade, or could be entirely ungraded as long as the student demonstrates a good faith effort.²⁴⁹ Studies suggest that “feedback may be more effective if ungraded because students tend to focus on grades, not suggestions for improvement.”²⁵⁰ But, of course, the absence of a grade could reduce students’ motivation, so a professor needs to weigh these competing considerations as relevant in her particular class.²⁵¹

A midterm gives the professor a lot of information about student learning, and as discussed above for other approaches to formative assessment, she should use that information to adjust her teaching for the remainder of the class.

VI. CONCLUSION

Formative assessment is now part of legal education. We are required to incorporate it throughout the curriculum, including in tax classes. But doing so can be more than a chore. It can help us achieve our goals for our courses. It can help our students learn more of what we are trying to teach. It can help our students be more effective learners so that they can be more prepared to understand the tax laws as they continue to change. And it can be done, and done effectively, without massive amounts of additional time and work, and without each tax professor having to delve deeply into the literature on learning.

249. See Duhart, *supra* note 6, at 504–05 (discussing and responding to the concern that students “[w]on’t [t]ake [i]t [s]eriously [i]f [i]t [d]oesn’t [c]ount”). I very rarely have students fail to put forth a good faith effort even on very low stakes (or no stakes) formative feedback, including written assignments. In the few instances that has occurred, there was typically something else going on with the student that caused them to disengage, and the student’s failure to engage gave me an opportunity to try to refer the student for assistance from the health center or other appropriate resources.

250. Sargent & Curcio, *supra* note 28, at 382 (citing research).

251. Different professors will make different decisions, but I tend to shy away from midterms because, when something is called a “midterm” (even if it counts for a relatively small portion of the overall grade), I have seen too many students largely ignore the opportunity to learn about their progress and focus instead almost exclusively on their grade, despite being told about how the midterm can help them learn and improve.

APPENDIX A

*Sample In-Class Exercise with Metacognitive Components*²⁵²

This exercise asks you to read a statute and apply it to various factual scenarios. This is intended to help you assess your ability to read, interpret, and apply a statute.

How well do you think you will do on this exercise?
(1=extremely poorly; 10=extremely well)

1 2 3 4 5 6 7 8 9 10

Please read the following excerpt from the Code, and answer the questions.²⁵³ You are also welcome to use your Code/Reg book, as you see fit.

§ 104. COMPENSATION FOR INJURIES OR SICKNESS

(a) In general.—Except in the case of amounts attributable to (and not in excess of) deductions allowed under section 213 (relating to medical, etc., expenses) for any prior taxable year, gross income does not include—

252. The goals of this exercise were to assess and provide feedback on students' statutory reading skills, to build students' metacognitive skills, and to enable students to understand the basics of section 104(a)(2). Students were provided with a worksheet with the content from this appendix, formatted so the worksheet fit on one sheet of paper printed double-sided.

253. The questions in this exercise are based on the problems on page 199 in JAMES J. FREELAND ET AL., *FUNDAMENTALS OF FEDERAL INCOME TAXATION CASES AND MATERIALS* (19th ed. 2018). I use this type of exercise multiple times during the semester in my FIT class. In addition to providing an example of an in-class exercise with metacognitive components, this appendix provides an example of how a professor could use a problem from part of the casebook that she does not assign and turn it into such an in-class exercise. These exercises can also, of course, be designed based on problems that you devise, but starting with a pre-existing problem makes it easier to create the exercise.

(2) the amount of any damages (other than punitive damages) received (whether by suit or agreement and whether as lump sums or as periodic payments) on account of personal physical injuries or physical sickness;

For purposes of paragraph (2), emotional distress shall not be treated as a physical injury or physical sickness. The preceding sentence shall not apply to an amount of damages not in excess of the amount paid for medical care (described in subparagraph (A) or (B) of section 213(d)(1)) attributable to emotional distress.

(c) Application of prior law in certain cases.—The phrase “(other than punitive damages)” shall not apply to punitive damages awarded in a civil action—

(1) which is a wrongful death action, and

(2) with respect to which applicable State law (as in effect on September 13, 1995 and without regard to any modification after such date) provides, or has been construed to provide by a court of competent jurisdiction pursuant to a decision issued on or before September 13, 1995, that only punitive damages may be awarded in such an action.

This subsection shall cease to apply to any civil action filed on or after the first date on which the applicable State law ceases to provide (or is no longer construed to provide) the treatment described in paragraph (2).

Facts	Excluded? Is the damage award excluded, not excluded, or does the answer depend on additional facts? Please circle your answer, and please briefly explain your answer.	Confidence? Please rate how confident you are about your response. (1 = not at all confident; 5 = extremely confident)
(a) Plaintiff lost the use of her leg after being physically attacked with a tire iron. She was awarded \$100K of compensatory damages.	Excluded. Not excluded. It depends.	1 2 3 4 5
(b) \$50K of the recovery in part (a) is specifically allocated as compensation for lost wages. (Plaintiff is a performer, and she was unable to perform because of her leg injury; she was not paid for the performances she missed.)	Excluded. Not excluded. It depends.	1 2 3 4 5
(c) The jury also awarded Plaintiff \$200K in punitive damages.	Excluded. Not excluded. It depends.	1 2 3 4 5
(d) The jury also awarded Plaintiff damages of \$150K to compensate for Plaintiff's suicidal tendencies resulting from the loss of the use of her leg.	Excluded. Not excluded. It depends.	1 2 3 4 5
(e) Plaintiff, in a separate suit, recovered \$100K of damages from a fan who mercilessly taunted Plaintiff about her unnaturally high, squeaky voice, causing Plaintiff extreme anxiety and stress.	Excluded. Not excluded. It depends.	1 2 3 4 5
(f) Plaintiff recovered \$200K in a suit for sexual harassment against her former coach.	Excluded. Not excluded. It depends.	1 2 3 4 5
(g) Plaintiff dies as a result of the leg injury, and Plaintiff's parents recover \$1M of punitive damages awarded in a wrongful death action under a long-standing State statute.	Excluded. Not excluded. It depends.	1 2 3 4 5

After doing the problems, how well do you think you did on this exercise? (1 = extremely poorly; 10 = extremely well)

1 2 3 4 5 6 7 8 9 10

After reviewing the answers in class, how well did you do on this exercise? (1 = extremely poorly; 10 = extremely well)

1 2 3 4 5 6 7 8 9 10