

TEACHING APPLIED SUSTAINABILITY: A PRACTICUM BASED ON DRAFTING ORDINANCES

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Abstract

This Article describes and explains a sustainability law practicum class that is now taught in only two law schools, but which has considerable teaching and practical value. It also explains how this class is consistent with, and furthers, the growing demand for experiential, skills-based legal education employing formative assessment. The class uses a real-world setting to provide students with skills they will need to help clients meet their sustainability goals. These skills include applying the principles of sustainable development in specific contexts; researching local government law; drafting legislation and ordinances; giving short presentations; and counseling clients. These skills are developed in the course through a semester-long project involving drafting sustainability-related ordinances (e.g., green roofs, composting) for an actual municipality or municipal government trade association.

I. INTRODUCTION

This Article is about a law school course in which students draft sustainability-related ordinances for municipal governments. Drake University Law School pioneered the class, and then Widener University Commonwealth Law School taught it in a modified form. The class is an effort to help students understand and apply sustainable development in a real world setting. In doing so, students are asked to step out of the classroom and explore their communities, identifying conditions that are not sustainable and exploring legal methods to address those policies and conditions.

To provide context, Section II explains sustainable development as well as two relevant areas of increasingly intense and widespread ac-

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tivity in moving toward greater sustainability. These are municipal governments and law schools. Section III describes both the Drake and Widener Commonwealth classes and explains their contribution to experiential and skills-based learning and formative assessment. This Section also compares differences in the approaches at Drake and Widener Commonwealth. In this way, we hope to illustrate that the course is flexible and can be adapted to numerous teaching styles and locations.

The courses offer law schools a win-win-win-win opportunity. The students learn an immense amount about a complex, multi-disciplinary and emerging area of the law, while honing their practical and public speaking skills. The communities, often lacking research-based resources, benefit from the students' creative and thoughtful projects. Our laws schools and universities continue to connect with and provide meaningful services to the communities. And we benefit by watching our students learn, grow, thrive, and be energized about the law and public service.

II. TRENDS IN SUSTAINABLE DEVELOPMENT

The course is based on two important areas of activity in sustainable development. One is at the municipal government level, and the other is in legal education.

A. *Municipal Governance*

Municipalities have been among the most active and effective participants in the quest for sustainability in the United States.¹ Sustainable development is of growing importance to a larger number of municipalities because of the benefits it provides to human quality of life. Sustainable communities are attractive because the positive effect of mutually reinforcing policies that protect the environment, create jobs, and build social equity is most obvious at the local level where people actually live, work, and play. Accelerating the transition to sustainability requires the active support and participation of municipali-

1. See generally Jonathan D. Weiss, *Local Governance and Sustainability: Major Progress, Significant Challenges*, in AGENDA FOR A SUSTAINABLE AMERICA 43 (John C. Dernbach ed. 2009), https://www.eli.org/sites/default/files/book_pdfs/agenda_for_a_sustainable_america_toc.pdf [<https://perma.cc/J9CN-6MNS>]; John C. Dernbach, *An Agenda for Sustainable Communities*, 4 HOUSTON ENERGY & ENVTL. L. & POL'Y J. 170, 171 (2009), <https://www.law.uh.edu/eelpj/publications/4-2/Dernbach.pdf> [<https://perma.cc/VUY2-8EYH>]. This was true under President Obama's administration and we expect it to continue and escalate under the Trump Administration. See, e.g., Climate Mayors, *Open Letter to President-elect Donald Trump on Climate Action*, MEDIUM (Nov. 22, 2016), <https://medium.com/@ClimateMayors/open-letter-to-president-elect-donald-trump-on-climate-policy-and-action-33e10dcdf85#3t1asgj2x> [<https://perma.cc/42E5-W2JZ>] (open letter signed by mayors representing 31 million people asking to partner with Trump administration on climate change, but noting "[they] are prepared to forge ahead even in the absence of federal support").

ties. To understand how this work should proceed, it helps to put municipal sustainability efforts in the context of the overall sustainability project.

Sustainable development is a decision-making framework to foster human well-being by ensuring that societies achieve development and environment goals at the same time.² It is not simply an academic or policy idea; it grows out of abundant experience of the costs of more-or-less single-minded economic development at the environment's expense.³ Sustainable development is also the internationally accepted framework⁴ for maintaining and improving human quality of life and well-being for the present generation as well as future generations.⁵

2. See generally John C. Dernbach & Federico Cheever, *Sustainable Development and Its Discontents*, 4 *TRANSNAT'L ENVTL. L.* 247 (2015); John C. Dernbach, *Sustainable Development as a Framework for National Governance*, 49 *CASE W. RES. L. REV.* 1 (1998).

3. For a description of the origins and modern use of the term "sustainability," see SHELLEY SAXER, JONATHAN ROSENBLUM, *SOCIAL-ECOLOGICAL RESILIENCE & SUSTAINABILITY*, Chapter One, Section II.B (Aspen Publishers 2018). See also INT'L UNION FOR THE CONSERVATION OF NATURE AND NATURAL RES., *WORLD CONSERVATION STRATEGY: LIVING RESOURCE CONSERVATION FOR SUSTAINABLE DEVELOPMENT* (1980), <http://data.iucn.org/dbtw-wpd/edocs/WCS-004.pdf> [<https://perma.cc/7EE6-HZA4>] (explaining the cost and difficulty of addressing environmental problems of development after development has occurred).

4. See G.A. Res. 70/1, *Transforming Our World: The 2030 Agenda for Sustainable Development*, preamble, (Oct. 21, 2015), http://unctad.org/meetings/en/SessionalDocuments/ares70d1_en.pdf [<https://perma.cc/2S4V-W69Q>] ("We are determined to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature."). See also *id.* ¶ 2 ("We are committed to achieving sustainable development in its three dimensions—economic, social and environmental—in a balanced and integrated manner.").

5. At the U.N. Conference on Environment and Development in 1992, countries agreed to a statement of 27 principles for sustainable development called the Rio Declaration on Environment and Development. U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I), annex I (Aug. 12, 1992), <http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm> [<https://perma.cc/J7U3-QZ95>] [hereinafter *Rio Declaration*]. The principles have proven to have enduring significance in understanding what sustainable development means for law. See *THE RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT: A COMMENTARY* (Jorge E. Viñuales, ed., 2015) (detailed explanation of each principle of Rio Declaration). One principle provides: "Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature." *Rio Declaration*, Principle 1. Another principle focuses on intergenerational equity: "The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations." *Id.* Principle 3. This principle has been restated in other agreements. See, e.g., U.N. Conference on Environment and Development, *Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests*, Principle 2(b), U.N. Doc. A/CONF.151/26/Rev.1 (Vol. III), annex III (Aug. 12, 1992), <http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm> [<https://perma.cc/H34N-U84K>] ("Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual human needs of present and future generations."); Convention on Biological Diversity, Preamble, *opened for signature* June 5, 1992, S. TREATY DOC. NO. 103-20, <https://>

The key action principle of sustainable development is integrated decision-making.⁶ Essentially, decision makers must consider and advance environmental protection at the same time as they consider and advance their economic and social development goals.⁷ By contrast, in conventional development, the environment tends to be an afterthought in a decision-making process in which economic development is the primary if not sole objective.⁸ Sustainable development is thus not just about environmental law; it is about how the entire development process is conducted. Sustainable development has begun to replace pollution control and cleanup as the “preeminent policy objective” in the United States.⁹ Still, sustainable development is a conceptual framework not fully reflected in—and often contradicted by—existing law.

In principle, sustainable development is more equitable than conventional development. Conventional development harms not just the environment but also those who depend on the environment, both living people and those in future generations. As a result, conventional development tends to benefit some people and, at the same time, put some people in a position that is worse in absolute terms than they were before development occurred. For that reason, there is often significant public opposition to conventional development—both in the United States and in other countries.

In addition, sustainable development generally provides a broader range of benefits than conventional development. Conventional de-

www.cbd.int/doc/legal/cbd-en.pdf [<https://perma.cc/F2Y6-BG5U>] (entered into force Dec. 29, 1993, U.S. ratification pending) (Parties are committed to “conserve and sustainably use biological diversity for the benefit of present and future generations”); U.N. Framework Convention on Climate Change, Art. 3, Principle 1, *opened for signature* June 4, 1992, U.N. Doc. FCC/INFORMAL/84/Rev.1, http://unfccc.int/files/essential_background/convention/background/application/pdf/convention_text_with_annexes_english_for_posting.pdf [<https://perma.cc/2GKK-RCFM>] (“The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.”).

6. John C. Dernbach, *Achieving Sustainable Development: The Centrality and Multiple Facets of Integrated Decisionmaking*, 10 *IND. J. GLOBAL LEGAL STUD.* 247 (2003); *Rio Declaration*, *supra* note 5, at Principle 4 (“In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.”).

7. Dernbach, *Achieving Sustainable Development*, *supra* note 6; *Rio Declaration*, *supra* note 5, at Principle 4.

8. See SAXER & ROSENBLOOM, *supra* note 3, at Chapter Two, Section II.A (describing decision-making based predominantly on economic criteria often at the expense of social and environmental issues); WORLD COMM’N ON ENV’T AND DEV., *OUR COMMON FUTURE* 28–29 (Oxford Univ. Press, 1987).

9. See Michael E. Kraft & Daniel A. Mazmanian, *Conclusions: Toward Sustainable Communities*, in *TOWARD SUSTAINABLE COMMUNITIES: TRANSITION AND TRANSFORMATIONS IN ENVTL. POL’Y* 317, 323 (Daniel A. Mazmanian & Michael E. Kraft eds., 2d ed. 2009).

velopment tends to be justified primarily in economic terms.¹⁰ Sustainable development, by contrast, tends to produce not just (or primarily) economic benefits,¹¹ but also social and environmental benefits. In addition, it generally produces greater net benefits because it produces much fewer and lower costs. As a result, sustainable development tends to produce higher quality of life.¹²

In the United States, sustainability has been embraced in a growing number of contexts. These include green building, local and organic food, sustainable forestry, energy efficiency, and renewable energy. In addition to municipalities, colleges and universities as well as corporations are among the most active practitioners.¹³

The municipalities and others who have been doing this work tend to understand that global environmental degradation is growing, and that there also are huge unmet human needs throughout the world. Local officials think deeply about what sustainability means in different contexts and why it is attractive to their communities. They often view their day-to-day job as making it happen, fixing what does not work, and improving results. They are engaged in a wide variety of fields, including agriculture, manufacturing, technology, community planning and development, business and industry, government, education, building construction, engineering, and law. Local officials also tend to see that we have no choice but to make economic development, job creation, and environmental protection work together rather than against each other. And they seek to translate those basic realities into reduced risks, greater opportunities, and improved quality of life.

It is not enough to make some progress toward sustainability. In the face of a changing climate, environmental degradation, and a growing population—all of which are moving rapidly in an unsustainable direction—it is not enough to get to a sustainable society someday.¹⁴ The challenge, rather, is to reverse unsustainable trends and accelerate the transition to a sustainable society.¹⁵

At least three things are necessary to reverse unsustainable trends and accelerate the transition to a sustainable society—and all of them require the active support of municipalities. First, governments must

10. See SAXER & ROSENBLOOM, *supra* note 3, at Chapter Two, Section II.A.

11. In fact, cities are very well positioned for economic development and job creation in areas such as renewable energy, energy efficiency, and waste management. JOAN FITZGERALD, *EMERALD CITIES: URBAN SUSTAINABILITY AND ECONOMIC DEVELOPMENT* (2010).

12. JOHN C. DERNBACH ET AL., *ACTING AS IF TOMORROW MATTERS: ACCELERATING THE TRANSITION TO SUSTAINABILITY* 289 (2012).

13. *Id.* at 289–90.

14. See SAXER & ROSENBLOOM, *supra* note 3, at Chapter Two, Section II.B (describing the growing economic, environmental, and societal challenges, including those presented by climate change and growing population).

15. See DERNBACH ET AL., *ACTING AS IF TOMORROW MATTERS*, *supra* note 12.

adopt an approach to sustainable development that is both visionary and pragmatic. They must be visionary in finding ways of addressing issues that further economic, social, and environmental goals at the same time. Simultaneously, they must be pragmatic in knowing what works and in accepting a certain amount of trial and error in the quest for a sustainable future.¹⁶ Second, because sustainable development does not now have an adequate legal foundation, it is important to develop and implement laws at all levels of government (including the local level) that support, encourage, or require more sustainable activities.¹⁷ Third, these laws, including local ordinances, must provide better and more sustainable choices.¹⁸

While municipalities have been in the forefront of U.S. sustainability efforts, a great deal of additional work is still required at the municipal level.¹⁹ Accelerating the transition to sustainability requires not only supportive local governance but also local laws that foster more sustainable actions. Law schools provide an ideal forum to explore and further such actions.

B. *Legal Education*

Sustainable development is becoming increasingly important in legal education.²⁰ There is growing activity across the entire span of law school activities—curriculum and teaching (including courses, texts, and programs); scholarship and research; buildings and operations; outreach and service; student life; and institutional mission, policy, and planning—all increasingly supported by a variety of external stakeholders.²¹ This trend is highly likely to continue. According to the American Bar Association Task Force on Sustainable Development, “[t]he transition to sustainability in both governmental and private sector decision making is inevitable, and will profoundly affect the legal profession.”²²

16. *Id.* at 267–84.

17. *Id.* at 241–65.

18. *Id.* at 229–40; *see also* GREENING LOCAL GOVERNMENT: LEGAL STRATEGIES FOR PROMOTING SUSTAINABILITY, EFFICIENCY, AND FISCAL SAVINGS (Keith H. Hirokawa & Patricia E. Salkin eds. 2012); ROBERT H. FREILICH ET AL., FROM SPRAWL TO SUSTAINABILITY: SMART GROWTH, NEW URBANISM, GREEN DEVELOPMENT, AND RENEWABLE ENERGY (2d. ed. 2010).

19. Weiss, *supra* note 1, at 53.

20. John C. Dernbach, *The Essential and Growing Role of Legal Education in Achieving Sustainability*, 60 J. LEGAL EDUC. 489 (2011) [hereinafter Dernbach, *Legal Education*].

21. *Id.* at 501–18.

22. AMERICAN BAR ASSOCIATION, FINAL REPORT OF THE AMERICAN BAR ASSOCIATION TASK FORCE ON SUSTAINABLE DEVELOPMENT 4 (July 30, 2015), http://www.americanbar.org/content/dam/aba/administrative/environment_energy_resources/research/final_sdtf_aba_annual_08-2015.authcheckdam.pdf [<https://perma.cc/5VZ3-2KVM>] [hereinafter AMERICAN BAR ASSOCIATION, FINAL REPORT].

The factors driving sustainable development in legal education are likely to grow and intensify over time. These drivers exist both inside and outside of the legal profession. Outside the legal profession itself, a powerful driver is clients, perhaps most especially those in business and industry, but also those in government and nongovernmental organizations, who are already deeply committed to moving in a more sustainable direction.²³ As a result, a small but growing number of lawyers are doing sustainability-related legal work, and in a wide variety of contexts.²⁴ As the ABA Task Force on Sustainable Development stated:

Sustainability is affecting, or will affect, tax law, insurance, banking, finance, real estate development, environmental and energy law, among other fields. It also involves a wide range of knowledge and skills, including commercial transactions, client counseling, litigation, advocacy before governmental agencies and other bodies, and legislative drafting.²⁵

Clients are coming to see sustainability as a better means of complying with existing legal rules, and as a means of providing more and better choices to clients. Among other things, a more sustainable approach will often yield reduced compliance costs. These reduced costs may come from energy efficiency and conservation, or the use of “green” infrastructure such as soil and plants rather than “grey” infrastructure such as concrete and pipes to manage urban stormwater.²⁶ Sustainable development approaches can also yield public benefits (improved public health and more livable communities)²⁷ that provide both direct and indirect financial benefits to companies. Governments are also adopting laws that reflect sustainable development concepts.²⁸ Law organizations are thus increasingly looking for lawyers

23. Dernbach, *Legal Education*, *supra* note 20, at 493–94. *See also* CERES, LEAD FROM THE TOP: BUILDING SUSTAINABILITY COMPETENCE ON CORPORATE BOARDS 5 (2017), (explaining how corporate boards of directors “can successfully integrate sustainability into their governance systems by raising their own competence on material sustainability issues to enable effective oversight.”).

24. John C. Dernbach, *Sustainable Development in Law Practice: A Lens for Addressing All Legal Problems*, DENV. L. REV. (forthcoming) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2836985 [<https://perma.cc/E6WU-PHQ9>].

25. AMERICAN BAR ASSOCIATION, FINAL REPORT, *supra* note 22, at 2–3.

26. *See* NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES, SUSTAINABILITY AND THE U.S. EPA 114–17 (National Academies Press, 2011); Keith Hirokawa & Jonathan Rosenbloom, *Thinking Ecosystems, Providing Water: The Water Infrastructure Imperative*, in CONTEMP. ISSUES IN CLIMATE CHANGE L. & POL’Y (Stephen Miller & Robin Craig eds. 2016).

27. SUSTAINABILITY AND THE U.S. EPA, *supra* note 26, at 114–17.

28. *See, e.g.*, Theodore L. Senet, *New California Sustainability Laws*, 38 PUB. L. J. 22 (2015), [http://www.gibbsgiden.com/pdf/New%20California%20Sustainability%20Laws-%20T%20Senet%20\(Winter%202015%20Public%20Law%20Journal\).pdf](http://www.gibbsgiden.com/pdf/New%20California%20Sustainability%20Laws-%20T%20Senet%20(Winter%202015%20Public%20Law%20Journal).pdf) [<https://perma.cc/XLX4-6TYT>] (detailed listing of statutes and regulations fostering sustainability that California has adopted over the past decade).

who understand the practical application of relevant sustainability concepts and can engage on these issues right out of law school.²⁹

From inside the legal profession, the drivers for sustainability in law schools include the American Bar Association (“ABA”) and several state and local bar associations.³⁰ In August 2013, the ABA House of Delegates, the organization’s governing body, adopted its third resolution supporting sustainable development. The resolution “urges all governments, lawyers, and ABA entities to act in ways that accelerate progress toward sustainability.”³¹ More specifically, the resolution “encourages law schools, legal education providers, and others concerned with professional development to foster sustainability in their facilities and operations and to help promote a better understanding of the principles of sustainable development in relevant fields of law.”³²

Law firms and other law organizations are also, to a growing degree, working to advance sustainable development on behalf of their clients; these firms and other organizations are another driver of sustainability in law schools.³³ Dozens of these firms even promote their sustainability activity on their website.³⁴ They are supported in this effort by tools for fostering sustainable development in law office operations³⁵ and in the practice of law.³⁶ Other state bar associations, including those in California,³⁷ Massachusetts,³⁸ and Pennsylvania³⁹

29. Dernbach, *Legal Education*, *supra* note 20, at 493–94. Another driver is colleges and universities—in no small part because the great majority of law schools are operated by universities with strong commitments to fostering sustainable development on an institution-wide basis. *Id.* at 495–96. Other drivers outside the legal profession include nongovernmental organizations and government. *Id.* at 497.

30. *Id.* at 497–501.

31. See generally AMERICAN BAR ASSOCIATION [ABA], *House of Delegates Resolution 105* (Aug. 12–13, 2013), http://www.americanbar.org/content/dam/aba/administrative/office_president/2013_hod_annual_meeting_105.authcheckdam.pdf [<https://perma.cc/PA8G-EM93>] (reaffirming its 1991 and 2003 commitments to sustainable development).

32. *Id.*

33. Dernbach, *Legal Education*, *supra* note 20, at 499–500.

34. Dernbach, *Sustainable Development in Law Practice*, *supra* note 24, at 1–2.

35. *ABA-EPA Law Office Climate Challenge*, A.B.A., http://www.americanbar.org/groups/environment_energy_resources/public_service/aba_epa_law_office_climate_challenge.html [<https://perma.cc/9BMY-PEXE>].

36. *Law Firm Sustainability Framework*, A.B.A., http://www.americanbar.org/groups/environment_energy_resources/public_service/model_law.html [<https://perma.cc/2W6P-QGQ9>].

37. See generally *Voluntary State Bar of California Lawyers Eco-Pledge and Voluntary Law Office Sustainability Policy*, STATE B. OF CAL. (Sept. 24, 2008), http://environmental.calbar.ca.gov/Portals/15/2015-05_Eco-Pledge-Form.pdf [<https://perma.cc/HC2V-73XN>].

38. *Green Guidelines*, MASS. B. ASS’N, <http://www.massbar.org/media/252221/greenguidelines0108.pdf> [<https://perma.cc/8YDH-SEP7>].

39. *Pennsylvania Lawyers United for Sustainability (PLUS) Program*, PA. BAR ASS’N, <http://www.pabar.org/public/sections/envco/plusprogram.asp> [<https://perma.cc/ABQ9-MHRL>] (last visited Sept. 9, 2017).

have developed tools for fostering sustainability in office operations. The Oregon State Bar has created a Sustainable Future Section that “supports sustainability within the Oregon legal profession and the practice of law through (1) educational programs, (2) examination of the integration of law and sustainability, and (3) dialogue about the needs and interests of future generations.”⁴⁰ A nonprofit organization, the Law Firm Sustainability Network, has launched “an online benchmarking tool that lets law firms perform self-assessments on their environmental sustainability practices.”⁴¹

Finally, law students are a driver for sustainability in legal education.⁴² A growing body of evidence indicates that the sustainability programs of colleges and universities influence student decisions to attend those colleges and universities.⁴³ It follows that law schools with strong sustainability programs are likely to attract students with that interest.⁴⁴

These drivers all mean that the demand for more robust sustainability programs in law schools is likely to increase over time. In turn, this requires law schools to develop new and innovative programming that responds to this demand.

III. SUSTAINABILITY PRACTICUM CLASS

Learning is not a spectator sport. Students do not learn much just by sitting in class listening to teachers, memorizing pre-packaged assignments, and spitting out answers They must make what they learn part of themselves.⁴⁵

The sustainability practicum class was first taught as a three-credit course at Drake University Law School in spring 2011. It has been taught as a two-credit course at Widener University Commonwealth Law School since the 2014 fall semester. In both classes, students draft sustainability ordinances for real-world municipal clients as well as a justification or explanation of those ordinances. At both schools, the class is an experiential learning course designed to introduce the theory and practice of sustainability and its relevance to the law. Incorporating experiential learning into the course provides a number of pedagogical and societal benefits, such as providing valuable legal research to the community; continuing to build the University’s relation-

40. *Sustainable Future Section*, OR. STATE B., <https://osbsustainablefuture.org/> [<https://perma.cc/7RYF-GAWK>] (last visited Sept. 9, 2017).

41. LAW FIRM SUSTAINABILITY NETWORK, <http://www.lfsnetwork.org/> [<https://perma.cc/J5C2-SE23>] (last visited Sept. 9, 2017).

42. Dernbach, *Legal Education*, *supra* note 20, at 500–01.

43. *Id.*

44. *Id.*

45. JOHN O. SONSTENG ET AL., *A LEGAL EDUCATION RENAISSANCE: A PRACTICAL APPROACH FOR THE TWENTY-FIRST CENTURY* 125 (2008) (quoting Arthur W. Chickering & Zeldia F. Gamson, *Seven Principles for Good Practice*, 39 AM. ASS’N FOR HIGHER EDUC. BULLETIN 3 (March 1987)).

ship with the region; expanding law school offerings that satisfy ABA writing, experiential learning,⁴⁶ and formative evaluation criteria;⁴⁷ and, perhaps most importantly, teaching students critical skills necessary to be a successful lawyer. But it is more than these things; it is a class that forces students to think about the kind of world in which they want to live and the contribution they can make to achieve that world.

This Section explains and analyzes the course from the perspective of three teaching approaches that are employed in each course.⁴⁸ It first details the benefits and challenges of designing a course centered on experiential learning. It explains the use of a skills-based approach to support experiential learning. This Section then explores the application of formative evaluation as the means to assess student performance in an experiential learning setting. Finally, it briefly explains what is being done to get these ordinances adopted after the class is over.

A. *Experiential Learning*

Learning about sustainability in both classes requires getting out of the classroom and into the community. Students are immersed in actual challenges facing their communities. Under controlled parameters, the Drake students represent a real client—the Greater Des Moines Partnership, a public and private venture, representing twenty-two chambers of commerce and 5,800 businesses⁴⁹—facing real issues. Under similarly controlled parameters, the Widener Commonwealth students represent (most recently) the Pennsylvania State Association of Township Supervisors and the Pennsylvania State Association of Boroughs, municipal associations that together represent 8.1 million people in more than 2,400 municipalities.

1. Experiential Structure and Content of Each Course

The Drake class is the model on which the Widener Commonwealth class is based, although the Widener Commonwealth class is different in some respects. The experiential structure and content of each is explained below. Differences between the two approaches suggest that more than one approach may be effective in achieving the underlying goals of the class.

46. *ABA Standards and Rules of Procedure for Approval of Law Schools* 2016–2017, A.B.A. 16 (2016), http://www.americanbar.org/content/dam/aba/publications/misc/legal_education/Standards/2016_2017_aba_standards_and_rules_of_procedure.authcheckdam.pdf [<https://perma.cc/P8HX-UT7P>] (Standard 303: Curriculum).

47. *Id.* at 23 (Standard 314: Assessment of Student Learning).

48. For an earlier and more generalized description of the course see Jonathan Rosenbloom, *Now We're Cooking!: Adding Practical Application to the Recipe for Teaching Sustainability*, 2 PACE ENVTL. L. REV. 21 (2011).

49. *About*, GREATER DES MOINES PARTNERSHIP (2016), <https://www.desmoinesmetro.com/en/about/> [<https://perma.cc/3JLJ-9T5V>].

a. Drake

In order to maximize the educational experience and exposure to the practice of sustainability, the students' primary task in the course at Drake is to draft local ordinances to strengthen community sustainability. In accomplishing this task, students incrementally build a case to support the adoption of their proposed ordinances. Students evaluate and question current policies to identify unsustainable conditions. They then locate the laws that encourage, create, or exacerbate those conditions. The students research best practices and draft innovative local policies that seek to ameliorate the unsustainable conditions. Students are encouraged to be creative. They need not be confined to or by the existing law. Because sustainability offers a new framework with which to view the law, students are asked to push the boundaries to improve the law in new and more sustainable ways to benefit more people.

While researching their proposed ordinances, students receive constant feedback from their peers, the professor, and outside guests. The students present their final proposals to the Des Moines City Council or the Des Moines Area Metropolitan Planning Organization.⁵⁰ Past projects have included energy audits of commercial buildings, food trucks to enhance low-income access to nutritious food, farm-to-school lunch programs, styrofoam and plastic bag ban from the waste stream, promotion of sustainable development on vacant lots, and others.⁵¹ The course has also been taught at the University of Oregon School of Law, where it was integrated into the Sustainable Cities Initiative—a University-wide applied-learning program.⁵²

Structuring the experiential component began by finding a willing and supportive partner practicing in this area. Some characteristics to consider in a collaborative partner are its willingness to contribute,

50. *About, DES MOINES AREA METROPOLITAN PLANNING ORGANIZATION* (2016), <https://dmampo.org/about/> [<https://perma.cc/TR5Q-YMAV>] (“The Des Moines Area MPO is comprised of 16 cities; DART [Des Moines Area Regional Transit]; three associate, non-voting cities; unincorporated portions of three counties in central Iowa; and one associate, non-voting county.”).

51. Prior reports are available for viewing. DRAKE UNIVERSITY SUSTAINABILITY AND THE LAW 2014–15, <http://www.law.drake.edu/newsEvents/docs/2014-sustainability-report.pdf> [<https://perma.cc/CVX9-EDFN>]; *Setting Sustainable Progress in Motion: Greater Des Moines*, DRAKE LAW, <http://www.law.drake.edu/newsEvents/docs/2013-sustainability-report.pdf> [<https://perma.cc/UZT7-P5AK>] (Spring 2013); *Setting Sustainable Progress in Motion: Greater Des Moines*, DRAKE LAW, <http://www.law.drake.edu/newsEvents/docs/2012-sustainability-report.pdf> [<https://perma.cc/6U2A-MSEN>] (Spring 2012).

52. *Sustainable Cities Initiative and Oregon Law: UO Law Students Addressed Six Areas Where the Law Can Improve Sustainability in Redmond*, UNIVERSITY OF OREGON, SCHOOL OF LAW (June 3, 2016) <https://law.uoregon.edu/news/sciRedmond> [<https://perma.cc/J96M-RGY5>] (describing the course at Oregon Law) (the reports are on file with Jonathan Rosenbloom and he is glad to share them). For more on the Sustainable Cities Initiative, visit <https://sci.uoregon.edu/> [<https://perma.cc/LXN5-3W2P>].

influence in the community, ability to interact with students and leaders, and support and passion for sustainability. This step requires considerable investigation to interview and gauge the interest of potential partners. The investment of time is well worth it. At Drake, the Greater Des Moines Partnership (the “client”⁵³) has been a great resource and supporter of the class.

Once the partner was selected, the course was structured in a four-step process that begins with the students identifying local challenges facing the region. This step is designed to get the students out of the classroom and explore the physical characteristics of the city. It requires the students to use their skills as law students to understand the connection between the law and conditions on the ground. It also results in highlighting poor practices that are often overlooked. For example, one group of students identified stormwater management (both quality and quantity issues concerning flooding) as an issue complicating sustainability in central Iowa.

In the second step, the students review and identify how the existing law exacerbates these challenges or allows them to occur. In this step, students delve deeper into understanding the connection between the law and the physical manifestation of the law. This exercise helps students connect the law to consequences (intended and unintended), externalities, and systems thinking. Through a hands-on exploration, students learn and see that the law can have effects, and that those effects can be controlled in an intentional way that helps create a more sustainable and just society. For example, the students exploring stormwater management identified the regulation of parking lots, which required minimum size lots, as exacerbating water quality and quantity challenges.⁵⁴

Third, the students research best practices from around the state, nation, and world. At this point in the class students learn that the law is not static and that its current form is only one way of crafting the law. There may be better ways. For example, the students addressing stormwater management challenges proposed flipping the ordinance on its head and moving from a minimum to a maximum lot size and included sophisticated flexible options for exceeding the maximum standards.⁵⁵

In the final step, the students draft an analysis and propose amendments to the local code. Through this process students gain an understanding that laws and facts are tied to actual conditions and are often

53. Similar to the client at Widener Commonwealth, “client” is used in quotation marks here to distinguish this relationship from that involved in legal assistance clinics at Drake and elsewhere that require a formal representation agreement. While there is no formal representation agreement, the relationship has aspects of an attorney-client relationship, as explained below.

54. See Donald C. Shoup, *An Opportunity to Reduce Minimum Parking Requirements*, 61 J. AM. PLAN. ASS'N 169–92 (1995).

55. See, e.g., DURHAM, N.C., CODE OF ORDINANCES §§ 5.8.1–5.8.8.

organic, as they can be tied to complex social-ecological systems. Students learn the need to be flexible and creative to help their clients. Throughout these four steps, it becomes clear that the current legal framework is only one way in which the law can be structured. The students' job is to find existing and new places where the law is not working and recommend improvements.

The students are guided through these four steps by a detailed syllabus, called the "Project Guide." The Project Guide divides each step into several class periods and sets forth the relevant reading assignment, whether a report or presentation is due, whether an expert guest is visiting, and the subject matter for the day. At each step, students draft a corresponding portion of their report and receive detailed comments. In addition, at each step, the students present their findings to the class, guests, and the client. In this way, the students incrementally build their proposals and presentations, while receiving constant feedback (something we discuss in more depth below on "formative evaluation").

The tools to help identify, analyze, and apply sustainability are frontloaded at the beginning of the course. Guest experts are relied upon to introduce the tools to the students during the beginning steps and classes. In this way, the students are provided with ample time to work with the tools and to experience how they can be incorporated into the law. For example, one class early in the semester explores ecosystem services with noted ecosystem services scholar Professor Keith Hirokawa.⁵⁶ Other classes review tools such as systems thinking, the precautionary principle, and adaptive governance, while other classes focus on requisite skills such as drafting local ordinances. The latter is typically taught by the Des Moines City Attorney, Jeff Lester.⁵⁷

In another series of classes spread throughout the semester, called "sustainability in action," students focus on one substantive area (such as transportation or corporations) and drill down to contextualize the tools previously discussed in class. For example, in one "sustainability in action" class the students might explore systems thinking and adaptive governance in the land use context. By doing so, students are able to apply the tools and skills they are learning in the classroom setting before and while they are researching their experiential projects.

Drafting the Project Guide requires a significant amount of upfront work, including relying on and scheduling numerous guests. However,

56. Each semester Professor Rosenbloom taught the course, Professor Hirokawa and other experts generously joined the class in person and via skype™ to help the students understand and incorporate ecosystem services and other tools.

57. Each semester Professor Rosenbloom taught the course, Des Moines City Attorney Jeff Lester generously joined the class to provide the students with the basics on drafting local ordinances. The sole exception to this was when Professor Rosenbloom taught the course at the University of Oregon School of Law, where Eugene City Attorney Glenn Klein graciously joined the class.

it helps move the class and the students' projects forward in a systematic way.

For the final assessment, students present in the Des Moines City Hall Chambers⁵⁸ or the public meeting room at the Des Moines Metropolitan Planning Organization. At these presentations the students describe their findings in a hearing open to the public. In the past, there have been between 35–45 people in the audience, including mayors and council members from around the region. Each student is given fifteen minutes to describe their project. The audience, then, has the opportunity to ask questions.⁵⁹

The audience is almost always deeply impressed and thankful for the students' work. The audience often asks pointed and challenging questions for which the students are almost always fully prepared as they have practiced their presentations to outside guests and experts numerous times throughout the semester. Rarely do audience members raise questions or comments that the students have not already encountered. However, it is not unusual for the students to be rigorously challenged and, at times, they encounter resistance and even hostility directed at their proposals. Importantly, however, this type of reaction is not uncommon in practice and the students prepare for it throughout the semester.

The experiential learning component of the course provides the students with numerous opportunities to hone lawyering skills they will need and rely on throughout their careers. As described above and in more detail below, some of the skills include drafting legislation, presenting persuasively in public forums, counseling the client, and researching best practices.⁶⁰ The course requires students to combine these skills as they incorporate sustainability into the law in an experiential learning environment.

b. Widener Commonwealth

The Widener Commonwealth class is modeled on the Drake class but is different in several respects. The “client”⁶¹ for this class has evolved over time. For the most recently completed class, the clients were the Pennsylvania State Association of Township Supervisors

58. At the University of Oregon, the students presented at the City of Redmond's City Hall.

59. For recorded videos from prior years see *City Council Meetings and Agendas*, CITY OF DES MOINES, <https://www.dmgov.org/Government/CityCouncil/Pages/Meetings.aspx> [<https://perma.cc/V9PR-6BRE>] (last visited Sept. 9, 2017).

60. See Charity Scott, *Collaborating with the Real World: Opportunities for Developing Skills and Values in Law Teaching*, 9 IND. HEALTH L. REV. 409, 416 (2012).

61. Like the Drake class, “client” is used in quotation marks here to distinguish this relationship from that involved in legal assistance clinics that require a formal representation agreement. While there is no formal representation agreement with PSATS or PSAB, the relationship has aspects of an attorney-client relationship, as explained below in the text.

(“PSATS”) and the Pennsylvania State Association of Boroughs (“PSAB”). PSATS has more than 1,400 member municipalities representing more than 5.5 million people and covering 95% of Pennsylvania’s land area.⁶² These municipalities range in size “from rural communities with fewer than 200 residents to suburban communities of more than 60,000 residents.”⁶³ PSAB, in turn, has nearly 1,000 member municipalities representing more than 2.6 million Pennsylvanians.⁶⁴ The largest borough in Pennsylvania, State College, has a population of more than 42,000.⁶⁵ Taken together, PSATS and PSAB represent more than 8.1 million people in more than 2,400 municipalities. Unlike the municipalities in the Des Moines metropolitan area, these municipalities tend to be smaller and are often rural.

The client has changed somewhat in each of the first three years during which the class has been taught. In its first year, the client was the city of Harrisburg, the capital of Pennsylvania, which has a population of about 49,000.⁶⁶ The City was emerging from a severe financial crisis that had gained national attention, and the newly elected mayor, Eric Papenfuse, had campaigned on a platform of greening the City. Applying the Drake model, it seemed appropriate to work with the City to develop proposed sustainability ordinances. While the mayor and his staff were unfailingly supportive, it became clear over the semester that beginning a new administration and repairing the fallout from the financial crisis limited the amount of time and energy that the City could devote to this project. In addition, substantial staff departures during the previous mayor’s term meant that the City had many fewer personnel, and thus less ability to respond to student questions.

As a result, it seemed appropriate in the second and third years to reach out to a different client. Rather than find another municipality, it seemed better to reach out to the state municipality associations that are headquartered in the Harrisburg area. In the second year, PSATS was the sole client. As already indicated, PSAB joined PSATS for the third year. Working with a municipal association rather than an individual municipality changed the nature of the project in one important way. Instead of drafting an amendment to Harrisburg’s existing ordinances, the students were tasked with drafting a model ordinance that any municipality could adopt.

62. *About Pa. Townships*, PA. ST. ASS’N OF TOWNSHIP SUPERVISORS, <http://www.psats.org/subpage.php?pageid=aboutpatownships> [https://perma.cc/7CUK-8VP8] (last visited Sept. 9, 2017).

63. *Id.*

64. *About PSAB*, PA. ST. ASS’N OF BOROUGHS, <http://boroughs.org/subpage.php?link=about> [https://perma.cc/WKE2-ZCKM] (last visited Sept. 9, 2017).

65. *Mayor’s Welcome*, STATE COLLEGE PENNSYLVANIA, <http://www.statecollegepa.us/1158/Mayors-Welcome> [https://perma.cc/9CT2-54GE] (last visited Sept. 9, 2017).

66. *Harrisburg, Pennsylvania*, CITY-DATA, <http://www.city-data.com/city/Harrisburg-Pennsylvania.html> [https://perma.cc/PHL7-YG98] (last visited Sept. 9, 2017).

The new approach has several advantages. First, the sheer number of member municipalities and their total population significantly increased the scope and potential impact of the project. Second, the use of model ordinances makes it possible for municipalities that are not members of PSATS or PSAB to consider them for adoption. Third, the use of model ordinances means that the project focuses on presenting municipalities with a range of choices in how to address specific issues with respect to each ordinance, which requires the students to have a broad understanding of the topic.

Fourth, PSATS and PSAB attorneys and staff bring considerable subject matter expertise to the table because of their experience with the various issues that are addressed. They are thus able to assist students in understanding what issues matter to their member municipalities and suggest how particular issues should be addressed. To facilitate this interaction, representatives of these organizations attend several classes over the semester to explain what they are looking for and to respond to questions from students. In turn, the project strengthens the expertise of these organizations and improves their ability to respond to member requests for assistance on the issues and model ordinances. To be sure, working with a municipal association is not the same thing as working with an individual municipality, with its particular conditions, history, and political and other leadership. But on balance, having municipal associations as clients has worked well.

In each of the three years, topics were chosen by the client. This is a departure from the Drake approach, in which students identify what problems should be addressed. For the Widener Commonwealth class, the client provides a list of topics for which it wants ordinances drafted. The students then choose from that list. That, of course, is consistent with the view that the client makes decisions about what it wants, and it indicates to the students that the client (not the professor) is in charge of choices about the content of the ordinance. Having the client choose the ordinance topics also enhances the likelihood that the model ordinances, once drafted, will be enacted in some form by its member municipalities.

The topics have varied widely over three years. In the first year, when the city of Harrisburg provided a list of desired ordinances, the students wrote on composting, food trucks, green building, green infrastructure, recycling, and stormwater management. In the second year, when PSATS provided a list of options, the students wrote on blight, community housing, walkability, natural gas pipeline setbacks, stormwater mitigation, rain gardens, and green roofs. In the third year, when PSATS and PSAB together provided the options list, the students wrote on community gardens; drones; farmers markets; floodplain restoration; pervious paving; mixed use zoning; noncommercial keeping of bees, chickens, and goats; and transit oriented development.

The final paper for the class has two parts—a narrative justifying the proposed model ordinance and the model ordinance itself. In the first two years of the class, each student was required to turn in such a paper; in the most recent year, students worked in teams of two to submit this paper. Students receive in advance a scoring guide or rubric that describes in detail how points will be awarded for each. For both the narrative and the ordinance, the scoring guide helps students understand how to prepare a document that they have not previously prepared, and it provides the professor with a greater likelihood that the students will actually address the issues that need to be addressed.

The narrative needs to include a detailed description of the problem that the ordinance is to address. The narrative must also include a justification for a new or revised ordinance. The justification must explain how existing law(s) cannot adequately address the problem and describe the social, environmental, and economic benefits or opportunities that the proposed ordinance would bring residents or businesses in a municipality. The narrative must also explain how this problem has been addressed in other jurisdictions. This explanation includes a discussion of the types of laws or ordinances employed by other municipalities to address this issue, as well as an evaluation of the effectiveness of these laws or ordinances to the extent such information is available.

Finally, the narrative must describe key policy issues. Students are to identify key policy questions about how to draft the ordinance that decision makers must address in proposing, adopting, and implementing an ordinance to address their particular issue. If municipal officials are interested in addressing this particular issue, what do they need to know about how to proceed? Students must also explain options for paying for their proposal.

To ensure that the narrative is fully responsive to the needs of the client, Professor Dernbach requested comments and suggestions from PSATS on a draft of the narrative scoring guide, and made changes in response to these suggestions. An example is options for paying for the proposal. PSATS argued that many municipal officials would want to know these options before they would seriously consider a proposed model ordinance.

For the model ordinance, the students receive a similarly detailed scoring guide or rubric. It begins with a set of standard formatting elements that are based on sample model ordinances that PSATS provided (title, purpose, enactment language, severability language, repeals language, and effective date). Another set of elements concerns definitions for special terms. Among other things, ordinances are evaluated for whether the definitions are free of substantive or procedural requirements. The model ordinance, students are told, must state with specificity and completeness what is required, prohibited, or allowed. The ordinance must also include any appropriate exceptions. Many of

these ordinances also impose fees on certain parties. Students are not required to include fees in their ordinance. If they do impose fees, however, they must do so in a reasonable manner.

In addition, the ordinance must include appropriate administrative and procedural provisions. If a government approval is required before conducting a particular activity, the ordinance must specify how that approval is to be obtained. For example, if an ordinance forbids an activity unless approval allows otherwise, the ordinance needs to set out the application requirements to seek approval. Application requirements may include application fees and criteria for approval or denial, among other things. Additionally, the ordinance should clearly address how its provisions will be administered.

Another set of elements involves basic drafting. Sentences are to be drafted as rules, students are told, and the language should be clear and easy to follow. In addition, there must be few if any grammar, sentence structure, and word choice errors. Sections and subsections must be of an appropriate length and organized coherently. The scoring guide also addresses effectiveness, in no small part because that is perhaps the ultimate test of a model sustainability ordinance—or any ordinance. This requires an evaluation of incentives and enforcement provisions as well as an assessment of whether the model ordinance is likely to significantly address the problem at issue.

Finally, students are required to include citations to appropriate sources, including other ordinances as well as secondary sources. They are told at the beginning of the class that they are allowed to copy parts of other ordinances verbatim or nearly verbatim; this is a common practice in drafting. However, the ordinance must contain footnotes to the sources from which students are copying. They are evaluated on this point for the number and diversity of types of sources.

The syllabus for the Widener Commonwealth class is based to a significant degree on the Drake Project Guide, in that it sets out the subjects, reading requirements, guest speakers, and written assignments for each class. It differs in emphasis from the Drake Project Guide in two respects, however. First, the class devotes a significant amount of time to presentations by outside speakers on drafting skills and research (not only local law research but also research on best practices). Second, the choice of supplemental reading material is oriented more toward climate change and sustainability in the practice of law. Student readings on climate change include excerpts from the Pennsylvania climate change mitigation and adaptation reports, which help the students understand that many of the ordinances they are drafting are related in some way to climate change. Student readings on sustainability in the practice of law are intended to help the students understand the relationship between what they are doing in

class and what they will someday be doing as lawyers, and give them a sense that lawyers are already beginning to do this kind of work.

A variety of guest lectures are built into the class. Legislative drafting is taught by Vincent DeLiberato, director of the Pennsylvania Legislative Reference Bureau, the entity which is responsible for the drafting of Pennsylvania bills and statutes, and A.J. Mendelsohn, a drafting attorney at the Legislative Reference Bureau. John Carroll, a partner at Pepper Hamilton LLP, explains his firm's efforts to foster sustainability and gives students an understanding of the challenges and opportunities of applying sustainable development in law practice.⁶⁷ Other speakers have included James Shortle of Penn State University, who has explained the likely impacts of climate change in Pennsylvania and what that means for Pennsylvania municipalities.

Like the Drake class, a capstone of the Widener class is an oral presentation by the students to decision makers and lawyers. But here, too, the format of that presentation has changed with each class. When the class represented the city of Harrisburg, the final presentation was at a City Council meeting attended by the mayor, the council vice president, another city council member, and many city staff.⁶⁸ The next year, the students presented their model ordinances to about two dozen township solicitors attending an all-day event sponsored by PSATS. In the third year, Widener Commonwealth hosted a three-hour continuing legal education program on practical sustainability for local governments at which the students presented their model ordinances. The program was cosponsored by PSATS and PSAB, and PSATS and PSAB representatives moderated the panels on which the students spoke. More than forty persons attended this event. At all three presentations, the audience was impressed with the professionalism and thoughtfulness of the student presentations.⁶⁹ Many had specific suggestions for how the students could improve their ordinances. At the same time, the students occasionally came under sharp questioning by several members of the audience for aspects of their proposals with which audience members seemed to disagree. Such questions provided an important teaching moment, not only about being prepared, but also for what it means to be taken seriously. The students, in other words, are treated by practicing lawyers in the audi-

67. For the Fall 2016 class, another speaker, Michelle Skjoldal, an associate at the firm, explained Pepper Hamilton's sustainability policy, among other things. *Sustainability Policy*, PEPPER HAMILTON LLP, <http://www.pepperlaw.com/about/sustainability/> [https://perma.cc/8YLK-75V2].

68. The audience included Mayor Papenfuse, Harrisburg City Council Vice President Sandra R. Reid, Councilwoman Susan Brown-Wilson, City Solicitor Neil Grover, Deputy City Solicitor Douglas L. Walmer (Widener Commonwealth Class of '02), City Engineer Wayne S. Martin (Widener Commonwealth Class of '08), and City Recycling Coordinator John Rarig.

69. "This is a wonderful idea to incorporate what you are learning in class in such a real world way," Mayor Papenfuse said. "You now have the ears of the city's movers and shakers."

ence as peers whose views deserve thoughtful consideration. At the end of class, the student papers are posted online, so that anyone easily has access to what the students have written.⁷⁰

2. Value of Experiential Learning for Sustainability

Experiential learning is an important and essential way to learn law. Experiential learning involves the “integrat[ion of] theory and practice by combining academic inquiry with actual experience.”⁷¹ The American Bar Association now requires law schools to incorporate experiential learning into their curricula:

A law school shall offer a curriculum that requires each student to satisfactorily complete at least the following: . . . one or more experiential course(s) totaling at least six credit hours. An experiential course must be a simulation course, a law clinic, or a field placement. To satisfy this requirement, a course must be primarily experiential in nature and must [satisfy four additional criteria set forth in the standard].⁷²

Law schools must implement and impose the new six-credit requirement for students entering law school in the 2016–2017 academic year.⁷³

Experiential learning is a particularly effective way to learn about sustainable development. To really understand sustainable development, a student needs to see how its theory and concepts work in the real world. Because sustainable development is a normative conceptual framework that is only partly reflected in law, it is difficult to teach sustainable development as an ordinary law class with cases, statutes, and other materials. Sustainable development, moreover, is not simply another subject in law school; it is a systematic approach to addressing a wide variety of legal problems. Finally, sustainable development is also inherently interdisciplinary because it combines economics, social wellbeing, and environmental protection, among other things. It therefore requires an approach that is interdisciplinary and dynamic.⁷⁴ Thus, treating it as a typical law school course—in which the majority of the material is taught in class through cases or other

70. *Model Sustainability Ordinances*, WIDENER U. COMMONWEALTH L. SCH., <https://widenerenvironment.wordpress.com/students/ordinances/> [<https://perma.cc/843M-TTL4>] (last visited Sept. 9, 2017).

71. ROY STUCKEY ET. AL., CLINICAL LEGAL EDUCATION ASSOCIATION, BEST PRACTICES FOR LEGAL EDUCATION: A VISION AND A ROAD MAP 165 (Clinical Legal Education Association 2007).

72. *ABA Standards and Rules of Procedure for Approval of Law Schools* 2016–2017, *supra* note 46, at 16 (Standard 303: Curriculum).

73. *Id.*

74. See E.O. Wilson, *Editorial on Sustainability*, 1 SUSTAINABILITY: SCI. PRACTICE & POL’Y 1, 1–2 (2005) (“Because studies of sustainable practice problems are, by nature, cross-disciplinary, stakeholders are forced to read and interpret language, models, and references that are outside their home domains.”).

materials and assessment of that material is made through a single exam at the end of the semester⁷⁵—is unlikely to be effective. On the other hand, teaching sustainability the way it tends to work for lawyers in the real world—which often involves translating abstract ideas into specific public or private laws—is much more likely to be effective.

Much of the legal literature on sustainable development in the United States is oriented toward the types of laws and policies that need to be adopted to move toward sustainability or to accelerate the transition to sustainability.⁷⁶ There are also excellent books of essays on sustainability and a number of sources explaining sustainability.⁷⁷ As already noted, a considerable amount of material is available to explain how law organizations can move toward sustainable development. And, more recently, one of the coauthors completed an article about what sustainable development means in law practice.⁷⁸ However, there has tended to be a dearth of books and articles for law students and lawyers on how to practically learn about sustainability.⁷⁹

A major challenge for sustainability is how to operationalize a broad theoretical or conceptual framework for specific sustainable practices in specific contexts.⁸⁰ Because sustainable development is a framework for integrating development and environment decisions, it follows that application of the framework depends on the particular kind of development that is being proposed as well as the ways in which it may affect both the environment and social wellbeing. The gap between the theory and practice of sustainability is more prominent in some fields than in others. In many areas of practice, particularly those where sustainability is more advanced—green building and sustainable forestry, among others—the gap between theory and practice in law is more narrow. In others—such as shale gas—the gap between theory and practice in law is broader.⁸¹ Moreover, each domain is quite different. The private certification requirements for sustainable forestry adopted by the Forest Stewardship Council are quite dif-

75. See N. Denise Burke, *Student Engagement in Law School: Preparing 21st Century Lawyers*, WYOMING LAWYER, Aug. 2011, at 29.

76. See, e.g., AGENDA FOR A SUSTAINABLE AMERICA, *supra* note 3; ACTING AS IF TOMORROW MATTERS, *supra* note 15.

77. See, e.g., WILLIAM R. BLACKBURN, *THE SUSTAINABILITY HANDBOOK* (Environmental Law Institute 2015). MARIE-CLAIRE CORDONIER SEGGER & ASHFAQ KHALFAN, *SUSTAINABLE DEVELOPMENT LAW* (Oxford University Press 2006).

78. Dernbach, *Sustainable Development in Law Practice*, *supra* note 24.

79. To fill this gap, Shelley Saxer (Pepperdine) and Jonathan Rosenbloom are co-authoring a new textbook, which incorporates many of the ideas in this Article. See SAXER & ROSENBLUM, *supra* note 3.

80. See Jonathan Rosenbloom, *A Framework for Application: Three Concrete, Contextual Strategies to Accelerate Sustainability*, in *RETHINKING SUSTAINABLE DEVELOPMENT TO MEET THE CLIMATE CHANGE CHALLENGE* (Keith Hirokawa & Jessica Owley eds., ELI Press 2014).

81. *SHALE GAS AND THE FUTURE OF ENERGY: LAW AND POLICY FOR SUSTAINABILITY* (John C. Dernbach & James R. May eds., 2016).

ferent from renewable electricity portfolio standards, net metering, and carbon pricing required for effective reduction of greenhouse gas emissions.

For teaching practical sustainability in a law class, a challenge is to find a specific context where the gap between theory and practice is narrowing but not closed. That is, the gap between theory and practice must be wide enough to be challenging for students; it must not be so narrow that students will simply be parroting laws and practices that are well established, and not so broad that students are unlikely to produce a usable work product.

A second issue concerns the institutional arrangements or level of governance on which the class will focus. For public governance, choices include international, national, state or province, and local governance, as well as regional arrangements involving national governments, state or provincial governments, or local governments.⁸² Another set of choices involves various forms of private governance.⁸³ Each form or level of governance raises different challenges for the choice of teaching materials and the structure of the class.

A third and final issue concerns how sustainability might vary depending on geographic differences. For example, understanding what is necessary to achieve sustainability for stormwater management in the southwestern United States⁸⁴ is fundamentally different from what is sustainable for purposes of water management in parts of eastern India, where some of the highest levels of precipitation in the world are experienced. In this illustration, there are varying legal and institutional barriers (subnational governments in U.S. versus India), as well as significant geographical conditions that alter the relevant legal solutions.

These three issues—the gap between theory and practice, institutional arrangements, and geographic differences—all support the use of experiential learning. It is virtually impossible to learn and read

82. See KLAUS BOSSELMANN, *THE PRINCIPLE OF SUSTAINABILITY: TRANSFORMING LAW AND GOVERNANCE* 63–72 (2009) (noting sustainability in domestic law, international judicial law, and international law); ROBIN MORRIS COLLIN & ROBERT WILLIAM COLLIN, *ENCYCLOPEDIA OF SUSTAINABILITY* 90–108 (2009) (noting involvement of United Nations and international governments in general); *id.* at 108–39 (federal government in general); CHRISTOPHER A. SIMON, ET AL., *STATE AND LOCAL GOVERNMENT: SUSTAINABILITY IN THE 21ST CENTURY* 148–49, 171–74, 201–02, 225–27, 287–93 (2010) (state legislative branches, state executive branches, and state courts); *id.* at 21–26, 294–307 (counties, townships, school districts, and municipalities).

83. Michael P. Vandenberg, *Private Environmental Governance*, 99 *CORNELL L. REV.* 129 (2013).

84. Much of the Southwest United States is suffering from drought conditions ranging from “abnormally dry” to “exceptional drought,” as classified by the National Drought Mitigation Center at the University of Nebraska-Lincoln. See U.S. DROUGHT MONITOR, <http://droughtmonitor.unl.edu/Home.aspx> [<https://perma.cc/A6XT-KDFG>] (last visited Sept. 9, 2017).

about all substantive legal areas where sustainability is relevant. Instead, it seems more useful in legal education to teach the students how to identify, analyze, and incorporate issues relevant to sustainability and the law. The content thus shifts to teaching the tools, skills, and questions to help recognize unsustainable conditions and apply sustainability to varying substantive contexts, institutional arrangements, and geographies.

All three of these issues, moreover, made the choice of municipal governments located in our geographic areas both reasonable and appropriate. The gap between theory and practice at the municipal level is narrowing because of the wide variety of municipalities that are engaging in a broad range of increasingly ambitious sustainability efforts. Because all municipalities have a long way to go, and because a great many municipalities have not fully or even partially engaged in sustainability activities, municipal governments are an appropriate place to bridge the gap between theory and practice. In terms of institutional arrangements, municipal governments are an appropriate choice because their geographic centers, and thus their decision makers and public constituencies, are accessible to our law schools and our law students. The municipal level is also an arena where there has been considerable sustainability activity. This is not to say that municipal government is the only reasonable level; other professors can make different decisions about how to focus and structure an experiential course for sustainable development. But we have found the choice both appropriate and fruitful. Thus, while sustainable development issues differ to some extent in other parts of the world, we have focused on the area or state where our students are studying. The choice is convenient and inexpensive for all involved. Again, this may not be the only appropriate choice of geography for an experiential sustainability course, but it is reasonable.

Experiential learning in this class has worked well for students for several reasons. To begin with, it has bridged the gap between theory and practice in sustainability.⁸⁵ Students explore theory in the classroom and then apply it by researching and drafting their proposed ordinances. In addition, experiential learning helps the students access the tools needed to identify and apply sustainability at a much deeper level. Students are encouraged to talk to municipal officials and practitioners, and not to simply do library or web research. As Professor John Sonsteng has noted: “Students . . . must talk about what they are learning, write about it, relate it to past experiences and apply it to their daily lives.”⁸⁶

Moreover, experiential learning in this class provides students with a venue to improve their lawyering skills, including interacting with

85. See Michael Robinson-Dorn, *Teaching Environmental Law in the Era of Climate Change: A Few Whats, Whys, and Hows*, 82 WASH. L. REV. 619, 637 (2007).

86. SONSTENG, *supra* note 45, at 125.

experts, drafting legislation, and presenting findings in a public forum. The students are given opportunities to enhance their professionalism and boost their self-confidence.⁸⁷ In addition, experiential learning has helped challenge students to think critically about the law and innovative ways to work with the law. Students seemed highly motivated when asked to present their ideas in a public forum, which is reflected in outstanding work.⁸⁸

Finally, in our experience, students want to do work that is relevant and useful, and the class responds to that desire. Many students want to do something in law school that will contribute positively to the world around them, and they want to do work in law school that more clearly and obviously resembles the work they will do as lawyers. We have been pleasantly surprised by student receptiveness to, and even enthusiasm for, an experiential approach to learning sustainability.

B. *Skills-based Learning*

The experiential nature of the course necessarily means that students are also required to learn certain skills. Essentially, if the students have the right skills, they can apply the theory of sustainability to real world and legal situations across disciplines. In this way, the course focuses on the skills to competently work with sustainability and the law. It also includes skills that are helpful and perhaps necessary for a law practice based on sustainable development. The Drake and Widener Commonwealth courses take overlapping but somewhat different approaches to these skills.

A key objective of the course at both schools is to provide students with a set of sustainability-related skills that they can take into a wide variety of other contexts and problems, whether their client is a municipality, corporation, nongovernmental organization, or other entity. These skills include applying the principles of sustainable development in specific contexts; drafting legislation or ordinances; researching local government law; giving short presentations; and counseling clients. Many of these skills, of course, are essential to the practice of law in general.

Perhaps the core skill taught in the class is how to apply the principles of sustainable development to specific contexts. This is similar to, but not the same as, the application of law to facts; it is about the application of specific principles and concepts to particular factual situations. Fundamentally, this skill reshapes the way students under-

87. See Lusine Akobian, *Mandatory Pro Bono as Confidence Builder for Law Students*, 83 J. KAN. B. ASS'N 19 (Jan. 2014).

88. See SONSTENG, *supra* note 45, at 167; WILLIAM M. SULLIVAN ET AL., EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW 103–04 (2007) (commonly referred to as the “Carnegie Report”); Karen Tokarz et al., *Legal Education at a Crossroads: Innovation, Integration, and Pluralism Required!*, 43 WASH. U. J.L. & POL’Y 11, 39 (2013).

stand particular problems, and enables them to identify potential problems, opportunities, and approaches they would likely otherwise simply miss.

The Drake class begins by exploring the concept and theory of sustainability at a 30,000-foot level, including the origins of the modern use of sustainability, what the existing definitions are, and how sustainability can be relevant to many legal disciplines.⁸⁹ It then explores tools that can help understand and assess the theory and apply it to concrete scenarios.⁹⁰ Some of these tools include ecosystem services management,⁹¹ systems thinking,⁹² precautionary principle,⁹³ risk analysis,⁹⁴ and adaptive governance.⁹⁵ Once this foundation is established, the class examines the theory and practice of sustainability in a variety of contexts, such as transportation and land use. Through this process students have the opportunity to learn about the tools to help achieve a more sustainable outcome, and study and explore those tools in action, before they apply them to their own proposals.

At Widener Commonwealth, students are taught that the most critical principle is integrated decision making, which means that environmental considerations and goals are integrated into decisions about economic and social development.⁹⁶ Essentially, students are taught to see problems in three dimensions—environmental, social, and economic. This approach contrasts with the way in which conventional development has worked, with its primary focus on economic development. This approach is also the way that lawyers who do sustainability-related legal work approach legal problems; they look for both opportunities and risks for clients across all three of these dimen-

89. See SAXER & ROSENBLOOM, *supra* note 3, at Chapter One, Section II.B (describing the theory and origins of the modern use of sustainability).

90. See STUCKEY, *supra* note 71, at 97 (“The separation of theory and doctrine from practice in the law curriculum was an unfortunate fluke of history that hinders the ability of law schools to prepare students for practice.”).

91. For a description of ecosystem services see Gretchen C. Daily, et al., *Ecosystem Services: Benefits Supplied to Human Societies by Natural Ecosystems*, 2 ISSUES IN ECOLOGY 1 (Spring 1997); Robert Costanza et al., *The Value of the World's Ecosystem Services and Natural Capital*, 387 NATURE 254 (1997).

92. For a description of systems thinking see Joseph Fiksel, *Sustainability and Resilience: Toward a Systems Approach*, 2 SUSTAINABILITY: SCI., PRAC., & POL'Y (2006).

93. See Conference on Environment and Development, Rio Declaration on Environment and Development, *supra* note 5, Principle 22. For a description of the precautionary principle see SUMUDU A. ATAPATTU, EMERGING PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW, SERIES ON INTERNATIONAL LAW AND DEVELOPMENT 228–29 (2006).

94. For a description of risk analysis see Yacov Y. Haimes, *On the Complex Definition of Risk: A Systems-Based Approach*, 29 RISK ANALYSIS 1647–1654 (2009).

95. For a description of adaptive governance see Carl Folke, et al., *Adaptive Governance of Social-Ecological Systems*, 30 ANN. REV. ENV'T & RESOURCES 441, 443 (2005); J.B. Ruhl, *General Design Principles for Resilience and Adaptive Capacity in Legal Systems: Applications to Climate Change Adaptation Law*, 89 N.C. L. REV. 1373, 1392–93 (2011).

96. See *supra* note 8 and accompanying text.

sions.⁹⁷ This skill is emphasized in assigned readings as well as an exercise based on a two-page factual problem involving local, corporate, and national decision making. It is reinforced by a question in the narrative rubric or scoring guide asking students to address the economic, social, and environmental aspects of the problem they are addressing.

Another essential skill is legislative or ordinance drafting. Several class sessions at both Drake and Widener Commonwealth are devoted largely or entirely to this skill. This effort focuses on two kinds of drafting skills. The first and most obvious are the mechanical and technical aspects of drafting—including how to write rules; how to organize sections and subsections; what words to use when prohibiting or requiring something; and when and how to use definitions. The second set of skills involve broader questions of effectiveness in addressing the problem, including whether the proposed ordinance is likely to actually work as intended, whether the various procedural and substantive components of the ordinance actually fit together coherently, and whether there are appropriate enforcement and incentive provisions. The template or scoring guide for the model ordinance obliges students to address both sets of questions.

Another important skill is researching local government law and best practices in sustainability. While students learn about researching state and national law in their first-year legal methods course, they do not learn how to research local law. Because a great many lawyers will work with or for local governments after graduation, this is an important lawyering skill. The research librarians at both Drake and Widener Commonwealth give presentations on how to do this kind of research and post online resources for the students.⁹⁸ The papers that the students submit tend to include numerous references to various local ordinances, not only from our respective regions, but also from other states and nations.

The students also learn how to give effective short presentations. They are told that much of law practice involves making relatively brief (six to eight minutes, or shorter) presentations to prospective and actual clients, as well as other audiences, including the public. There is an in-class exercise about what they think makes an effective presentation, and the results of that exercise are written and subsequently shared with the students. They each make several short

97. Dernbach, *Sustainable Development in Law Practice*, *supra* note 24.

98. Over the past six years, the librarian at Drake University Law School has compiled an enormous amount of information at the site. *Sustainability and the Law: Fall 2014: Overview*, DRAKE L. SCH., <http://libguides.law.drake.edu/Sustainability> [<https://perma.cc/FU59-GNZV>] (last visited Sept. 9, 2017). At Widener Commonwealth, librarians Pat Fox and Ed Sonnenberg have developed a similarly detailed guide on local government research and best practices in sustainability. *Local and Municipal Law Research*, WIDENER U. COMMONWEALTH L. SCH. & WIDENER U. DEL. L. SCH., <http://libguides.law.widener.edu/content.php?pid=624892&sid=5168737> [<https://perma.cc/5KAS-W26T>] (last visited Sept. 9, 2017).

presentations in class over the semester on such topics as best practices on their topic or a municipality that has been particularly effective in advancing sustainability across a range of issues. They also present their draft narrative or ordinance in class, and make a final presentation before a public audience.

Finally, students learn some aspects of client counseling. Several key aspects of this, already suggested, include being responsive to what the client wants and drafting model ordinances that, in effect, present municipalities with a reasonably complete menu of choices on how to proceed. This approach to the project is reinforced by the constant presence of client representatives throughout the semester as well as in the final public presentation. In addition, draft narratives and ordinances are sent to the client(s) for review and comment, and client feedback is then shared with the students.

C. *Formative Assessment*

Formative assessment is an essential component of the class at both schools; it is integral to the educational benefits of experiential and skills-based learning. Formative evaluation is incremental evaluation or “ongoing assessments designed to make students’ thinking visible to both teachers and students.”⁹⁹ In the law school setting, summative evaluation continues to be the predominant form of assessment and typically consists of an exam given at the end of the semester. This model does not provide the valuable formative feedback critical for learning.¹⁰⁰ The ABA defines formative and summative assessment as follows:

[Formative assessment consists of] 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. Summative assessment methods are measurements at the culmination of a particular course or at the culmination of

99. Heather Zuber, *A Fresh Look At Assessing Students’ Work Product: What Is Assessment, Why We Assess, And How To Do So Effectively And Efficiently*, 19 PERSP.: TEACHING LEGAL RES. & WRITING 20, 21 (2010). For a description of the pros and cons of providing formative evaluation see 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); Rogelio A. Lasso, *Is Our Students Learning? Using Assessments to Measure and Improve Law School Learning and Performance*, 15 BARRY L. REV. 73 (2010).

100. See Daniel Schwarcz & Dion Farganis, *The Impact of Individualized Feedback on Law Student Performance*, 67 J. LEGAL EDUC. (forthcoming 2017) (“For well over a century, students’ grades in most law school classes have been based exclusively on their performance on a single end-of semester exam.”) (citing Phillip C. Kissam, *Law School Examinations*, 42 VAND. L. REV. 433, 471–72 (1989); Robert C. Downs & Nancy Levit, *If It Can’t Be Lake Woebegone . . . A Nationwide Survey of Law School Grading and Grade Normalization Practices*, 65 UMKC L. REV. 819, 822–23 (1997)).

any part of a student's legal education that measure the degree of student learning.¹⁰¹

ABA Standard 314 states:

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.¹⁰²

The decision to employ formative assessment was, for each of us, based on different professional experiences that led to the same conclusion. Professor Rosenbloom's decision to use formative evaluation in this course stemmed primarily from his experience and exposure to architectural undergraduate education. In architecture, courses rely heavily on formative evaluation through incremental "crits" (critiques), where students regularly present their projects before the class, professor, and guests. Throughout the term, students design their projects in phases, receiving feedback at each stage. It is a rigorous and grueling process. But it is also an invaluable educational experience to present and defend ideas in front of colleagues and guests and to receive regular feedback.¹⁰³ Professors also gain a wealth of information in terms of whether the content is understood and properly applied. If not, there are opportunities to alter and redirect the course prior to the "final exam."

Professor Dernbach has taught legal writing and published a text on the topic.¹⁰⁴ The pedagogy of the text is based largely on formative assessment. Legal writing involves a set of skills that are best learned one at a time. The text explains each skill, uses a hypothetical problem to show good and bad ways of applying that skill, and includes numerous exercises to give students the opportunity to apply that skill.¹⁰⁵ Whatever text is employed, classroom instruction in legal writing is also based on formative assessment. Ordinarily, students write a series of legal memoranda, briefs, or even judicial opinions over a semester, which are then reviewed and evaluated by their professor. They may also be obliged to turn in their written answers to specific exercises. The final grade is thus based on the sum of many written assignments.¹⁰⁶ This is not simply a reasonable way to learn; it is the only effective way to learn legal writing.

101. *ABA Standards and Rules of Procedure for Approval of Law Schools* 2016–2017, *supra* note 46, at 23 (Standard 314: Assessment of Student Learning, Interpretation 314-1).

102. *Id.* at 23 (Standard 314: Assessment of Student Learning).

103. See Carol Springer Sargent & Andrea A. Curcio, *Empirical Evidence That Formative Assessments Improve Final Exams*, 61 J. LEGAL EDUC. 379, 382 (2012).

104. JOHN C. DERNBACH ET AL., *A PRACTICAL GUIDE TO LEGAL WRITING AND LEGAL METHOD* (6th ed. 2017).

105. *Id.*

106. Professors Dernbach and Rosenbloom also employ formative assessment in several of their other classes through a series of short quizzes (mostly multiple choice)

The use of formative assessment is also supported by considerable research. “Effective education . . . requires ‘frequent formative assessments that provide students with the opportunity to gauge their progress as they acquire new skills.’”¹⁰⁷ A recent empirical study of eight double sections at the University of Minnesota School of Law compared those sections which received individualized feedback in one of its classes prior to the final exam with sections that did not.¹⁰⁸ The study concluded that “students from the section receiving individualized feedback outperformed the students from the section that did not in every single class.”¹⁰⁹

[Students who received] individualized feedback consistently outperformed students in sections that have not received any such feedback. The effect is both statistically significant and hardly trivial in magnitude, approaching about 1/3 of a grade increment even after controlling for students’ LSAT scores, undergraduate GPA, gender, race, and country of birth.¹¹⁰

Building regular feedback into the course helps the students accept criticism and adapt their projects to accommodate that criticism. This is an important skill that will help students throughout their careers. It is also a skill that students are not exposed to when evaluated solely on a single final exam. The course provides students with several opportunities to attempt new tactics, receive feedback, and adjust accordingly. This allows for “intentional learning” in which students are “self-conscious about and self-directed in their own learning.”¹¹¹ As the students develop into lawyers, this skill helps the students reflect on their experiences and improve their lawyering skills—a quality that will help them regardless of the type of law they ultimately practice.¹¹²

[P]roviding students with individualized feedback designed to help them learn does indeed promote learning in law school. But it also does much more than that. In particular, it shows that the positive impacts of individualized, formative feedback extend well beyond the classroom in which that feedback is given, helping students compete in all of their other law school classes.¹¹³

At each school, the course employs at least three different kinds of formative assessment—written assignments, oral presentations, and peer review.

or short writing exercises that oblige the students to keep current with the material and provide them with feedback on how well they understand it.

107. Schwarcz & Farganis, *supra* note 100, at 2.

108. *Id.* at 41.

109. *Id.* at 5.

110. *Id.* at 1.

111. Roy Stuckey, *Teaching with Purpose: Defining and Achieving Desired Outcomes in Clinical Law Courses*, 13 CLINICAL L. REV. 807, 823 (2007).

112. See Susan L. Brooks, *Meeting the Professional Identity Challenge*, 41 U. BALT. L. REV. 395, 421 (2012); Tokarz, *supra* note 88, at 41.

113. Schwarcz & Farganis, *supra* note 100, at 41.

1. Written Works

Students receive regular feedback on their writing. At Drake, students submit a draft and receive comments on their draft at each of the four steps described above—identifying local challenges facing the region, identifying how the existing law exacerbates or allows those challenges to occur, researching best practices, and analyzing and proposing amendments to the local law. At Widener Commonwealth, students receive detailed comments on their draft narrative and their draft ordinance before they are finalized. Professor Dernbach’s comments track the points identified in the template or scoring guide for both the narrative and the ordinance, and thus provide a detailed roadmap for the students to improve their performance on the final draft. To motivate the students to submit quality drafts, the drafts at both schools count for part of their grade. The drafts are also shared with the clients at both schools. At Widener Commonwealth, PSATS and PSAB representatives attend subsequent classes to respond to questions about their comments. Finally, Legislative Reference Bureau staff provide detailed comments on each draft student ordinance and meet with students to discuss these comments.

2. Oral Presentations

In each class, students also make short in-class presentations as well as a presentation to a public audience at the end of the semester. For our courses, we believe having multiple presentations provides the instructor with several opportunities to determine whether the students are on track and whether they understand the materials.

At Drake, students make short in-class presentations that correspond to three of the four steps described above—identifying local challenges facing the region, identifying how existing law exacerbates these challenges or allows them to occur, and proposing amendments based on best practices. These presentations are done before guests (including the client), who provide the students with critical interim feedback. These presentations help motivate the students to work on their proposals throughout the semester. Further, students are able to work on their proposals in a way that gives them flexibility to try new and innovative approaches and get feedback on those approaches prior to the final presentation. Students have opportunities to take risks without potentially failing the course as they can discover quickly whether or not they are on a correct path.¹¹⁴ Before the presentations, the students are provided with a rubric to give them a sense of how

114. See Herbert Ramy, *Moving Students from Hearing and Forgetting to Doing and Understanding: A Manual for Assessment in Law School*, 41 CAP. U. L. REV. 837, 845 (2014) (finding that formative assessment can help students learn by setting forth “a clearer picture of areas that need improvement”).

they will be graded.¹¹⁵ This provides them with necessary direction for both their preparation and for how their work will be evaluated.

At Widener Commonwealth, students participate in an in-class exercise at the beginning of the semester about what makes for an effective short presentation. They also make several presentations over the course of the semester and take questions from their classmates. For the Fall 2016 class, students presented their draft narratives and draft ordinances shortly after they turned them in. That gave students an opportunity to practice prior to the final presentation. Among other things, it gave them direct feedback on how to make their presentation within the limited time they are allotted.

3. Peer Review

In addition to regular feedback from the professor and guests, students are formally reviewed by their peers. The Drake and Widener Commonwealth approaches to peer review are somewhat different. At Drake, students are peer reviewed on one presentation during the semester.¹¹⁶ Students are provided with a list of questions to help facilitate their analyses of other students' work, but the students are free to comment on any issue that strikes them. At Widener Commonwealth, each draft student narrative and draft ordinance is peer reviewed by one other student. Students are told that their comments are to be based on the template or scoring guide but, like Drake, they can and do comment on whatever they believe to be important.

Because these peer reviews put the students in the position of evaluating other students, they gain a much better understanding of what they are expected to do. By assessing the work of another student, they also learn about another topic in greater detail than would have otherwise been the case. Peer reviews, moreover, seem to provide an extra means of motivation, as the students know they are being reviewed by their colleagues.

In addition, peer reviews often result in enhanced engagement and creative thought with students helping each other in meaningful ways.¹¹⁷ While peer review is not necessarily the same as collaborative learning, we encourage students to help each other improve their work, and treat peer reviews as an opportunity for constructive criti-

115. Similar to any document relevant to the Drake course, Professor Rosenbloom is glad to provide the rubric to anyone interested.

116. The word "formally" is used here because students are regularly providing feedback to each other. That feedback occurs during the three presentations and during the regular class periods. The students are encouraged to provide feedback. They are told to view our class as a single firm focused on sustainability where the class works together, trying to make each other's project better.

117. 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, 673–74 (2011).

cism. Peer reviews thus foster a collaborative learning environment in the classroom:

The benefits of cooperative learning are well documented. Research on adult learners has revealed that cooperative learning – learning that takes place when peers share experiences and insights – is not only the most common type of adult learning, it is perhaps the most effective style. Cooperative learning produces higher achievement, reduces student attrition, increases critical thinking, betters attitudes toward subject matter, increases social support, improves social adjustment, and increases appreciation for diversity.¹¹⁸

In sum, the combination of experiential learning and formative assessment has the potential to get the students engaged and have them take ownership over the content, while learning valuable skills applicable to their legal careers.

D. *Getting the Ordinances Adopted*

A major challenge is how to get the student ordinances adopted. Once the class is over, there has been no one to advocate for the students' projects, even though there is a great amount of energy and support behind the proposals immediately following the presentations. Drake and Widener Commonwealth have taken two different approaches to this issue.

At Drake, Professor Rosenbloom and Meg Fitz, Senior Vice President at the Greater Des Moines partnership, decided to create the Drake Law Fellowship in Sustainability. The Fellowship is a full-time summer and part-time academic-year position funded by the private sector. The fellow is charged with improving and refining the model local ordinances from the class. The fellow meets with additional stakeholders and performs additional research. The fellow also drafts a cost and benefit summary to explore the true effects of the ordinances.

After refining the ordinance and drafting the cost and benefit summary, the fellow advocates for adoption of the local ordinances and consults with local governments on drafting and implementing projects relevant to sustainability. Thus far, the fellow has met with

118. STUCKEY, *supra* note 111, at 122; Schwarcz & Farganis, *supra* note 100, at 19, 30–31, 142 (“In college education, cooperative learning fosters . . . (1) more student learning and better academic performance, especially when the task is complex and conceptual; (2) development of problem solving, reasoning, and critical thinking skills; (3) positive student attitudes toward the subject matter and course; (4) closer relationships among students and between students and teachers; and (5) students’ willingness to consider diverse perspectives. Legal educators note additional benefits of cooperative learning. Cooperative learning enables students to learn to work in a team and develop collaborative approaches to negotiation and mediation. Moreover, cooperative learning helps students build community in and out of the classroom and to develop greater respect for one another.”).

over two dozen city councils and planning departments. The fellow has also redrafted and refined fifteen ordinances.¹¹⁹

For each of these ordinances, the fellow drafts an abstract, explaining in plain language what the challenge is and how the ordinance addresses it, containing the model ordinance, and summarizing its costs and benefits. In 2015, the first ordinance was adopted by a local government and entered into law.¹²⁰ Also in 2015, Professor Rosenbloom procured another source to fund a second fellowship. Continuing the educational experience and experiential learning through fellowship has helped continue the goals of building the University's relationship with the region, providing invaluable legal research to the community, expanding law school offerings, and teaching students critical skills necessary to be a successful lawyer.

At Widener Commonwealth, where the class has been taught over a shorter period, the approach to adoption has changed over time, but there is not yet any formal means of advocacy for the ordinances after the class is over. After the first class, Harrisburg upgraded its recycling program and adopted a new food truck ordinance. The new Harrisburg food truck ordinance addressed the same issues that were addressed in the student paper. For the second and third years, the model ordinances were not necessarily drafted with the understanding that they can or will be adopted "as is." The idea, rather, is that municipalities will use them as a starting point in writing their own ordinances. That is, the research and issues identified in the student papers provide municipal solicitors and others with the ability to learn an issue and an approach to drafting much more quickly than would otherwise have been the case. Because there is no formal feedback mechanism to PSATS, PSSAB, or Widener Commonwealth on the use of model ordinances that are posted online, it is difficult to assess uptake by local governments—either as the basis for their ordinance or as a resource. Still, there is considerable anecdotal evidence that local governments are using the model ordinances as a resource. The plan is thus to continue creating a bank of model sustainability ordinances that municipalities can consider and adopt, and to continue posting them online.¹²¹ Some unanticipated benefits have also occurred. One student is using the expertise he gained on his topic to create a significant professional opportunity as a practicing lawyer, working for adoption of his proposal in municipalities across Pennsylvania.

119. To view the ordinances, abstracts, or cost and benefit summaries, please contact Professor Rosenbloom.

120. Reid Chandler, *City's Food Pilot Truck Program a Result of Drake Law Student Project*, WHO-HD (Mar. 13, 2015), <http://whotv.com/2015/03/13/citys-pilot-food-truck-program-a-result-of-drake-law-student-project/> [<https://perma.cc/FR7K-4K4T>].

121. *Model Sustainability Ordinances*, *supra* note 70.

IV. CONCLUSION

A key to accelerating the transition to sustainability is to develop and apply tools that can be widely applied, including legal tools.¹²² It is also essential to provide the next generation of lawyers with the skills and knowledge for effectuating this transition. This Article has described one such tool—a class designed for drafting sustainability ordinances for local governments. It is based on theories of effective legal education—experiential learning, skills-based learning, and formative assessment—that are increasingly required in law schools. For the students, however, it is more than that. It is a course that gives them the opportunity to make a contribution and to see themselves as lawyers capable of continuing to make a contribution after they graduate.

122. DERNBACH, ACTING AS IF TOMORROW MATTERS, *supra* note 12, at 241.