
TO DEVELOP CRITICAL THINKING SKILLS AND ALLOW
STUDENTS TO BE PRACTICE-READY, WE MUST MOVE
WELL BEYOND THE LECTURE FORMAT

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Potential employers are increasingly demanding that graduates enter the job market practice ready. The meaning of “practice ready” has been the subject of many lively conversations around the water cooler and the topic of many law review articles.¹ Lurking in the background is the ever-present desire of employers that law school graduates possess better critical thinking skills, which means graduating with the ability to “think like a lawyer.” That too, including what “critical thinking skills” and “thinking like a lawyer” actually mean, has been the subject of considerable thought and research.²

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¹ See, e.g., Scott H. Bice, *Good Vision, Overstated Criticism*, 1 J. ASS’N LEGAL WRITING DIRECTORS 109, 111 (2002); Bryant G. Garth & Joanne Martin, *Law Schools and the Construction of Competence*, 43 J. LEGAL EDUC. 469, 488–92 (1993); Neil W. Hamilton, *Changing Markets Create Opportunities: Emphasizing the Competencies Legal Employers Use in Hiring New Lawyers (Including Professional Formation/Professionalism)*, 65 S.C. L. REV. 547, 577 (2014); Nancy B. Rapoport, *Is “Thinking Like a Lawyer” Really What We Want to Teach?*, 1 J. ASS’N LEGAL WRITING DIRECTORS 91, 97–102 (2002); Alexa Z. Chew & Katie Rose Guest Pryal, *Bridging the Gap Between Law School and Law Practice* 6–9 (June 29, 2015) (unpublished paper), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2575185; see also John Burwell Garvey & Anne F. Zinkin, *Making Law Students Client-Ready: A New Model in Legal Education*, 1 DUKE F. LAW & SOC. CHANGE 101, 115–22 (2009).

² See, e.g., David R. Barnhizer, *The Purposes and Methods of American Legal Education*, 36 J. LEGAL PROF. 1, 18–39 (2011); Bethany Rubin Henderson, *Asking the Lost Question: What is the Purpose of Law School?*, 53 J. LEGAL EDUC. 48, 57–60 (2003); Peter Toll Hoffman, *Teaching Theory Versus Practice: Are We Training Lawyers or Plumbers?*, 2012 MICH. ST. L. REV. 625, 643–45 (2012); Amy E. Sloan, *Erasing Lines: Integrating the Law School Curric-*

Identifying which skills make a graduate “practice ready” and identifying which skills allow an attorney to engage in “critical thinking” is difficult and elusive. “The definition of complex thinking skills has been referred to as a conceptual swamp and . . . a century old problem for which there is no well-established taxonomy or typology.”³ Even if definitions could be found, it is perhaps even more difficult to imagine what teaching those skills would look like in the law school classroom.

Rather than focus on elusive definitions, a more meaningful approach is to consider what an attorney must be able to do in the practice of law, reflect on what students are taught in law school, and consider the gap between the two.

I. IDENTIFYING THE GAP

A. *The Student’s Viewpoint*

The majority of casebooks and law school courses are constructed around the case method.⁴ Students read the assigned cases, and by defining, interpreting, or advancing a particular area, those cases tell a story of how the law has developed and where it currently stands.⁵ In class, the professor lectures by expanding on the story line, filling in the necessary details, highlighting the most important developments, establishing important connections and nuances, and explaining par-

ulum, 1 J. ASS’N LEGAL WRITING DIRECTORS 3, 3–7 (2002) (memorializing material presented during conference proceedings and containing several other thought-provoking articles addressing what lawyers need to know and what “thinking like a lawyer” means). See generally FREDERICK SCHAUER, THINKING LIKE A LAWYER: A NEW INTRODUCTION TO LEGAL REASONING (2009).

³ Lucy A. Goodson, *Teaching and Learning Strategies for Complex Thinking Skills*, in 1 ANNUAL PROCEEDINGS OF SELECTED RESEARCH AND DEVELOPMENT PAPERS PRESENTED AT THE NATIONAL CONVENTION OF THE ASSOCIATION FOR EDUCATIONAL COMMUNICATION AND TECHNOLOGY 164, 164 (Margaret Crawford & Michael Simonson eds., 2000) (citing Arthur Lewis & David Smith, *Defining Higher Order Thinking*, 32 THEORY INTO PRACTICE 131, 131 (1993)).

⁴ See Steven I. Friedland, *How We Teach: A Survey of Teaching Techniques in American Law Schools*, 20 SEATTLE U. L. REV. 1, 12–14 (1996); Eric Mills Holmes, *Education for Competent Lawyering—Case Method in a Functional Context*, 76 COLUM. L. REV. 535, 540–60 (1976); Catharine Pierce Wells, *Langdell and the Invention of Legal Doctrine*, 58 BUFF. L. REV. 551, 553 (2010); Roy Worthy Campbell, *The End of Law Schools* 10–36 (Feb. 18, 2015) (unpublished paper), http://works.bepress.com/ray_campbell/3.

⁵ See Friedland, *supra* note 4, at 12–14; Holmes, *supra* note 4, at 556–60; Wells, *supra* note 4, at 553; Campbell, *supra* note 4, at 10–19.

ticularly difficult areas.⁶ In turn, the students are expected to create an outline of the material presented and memorize it for use on an exam.⁷

To teach legal content and allow the students to understand an area of law, this method works well. Moreover, there is no question that, to be a successful practicing attorney, students must learn the law.

B. *The Employer's Viewpoint*

An attorney must ferret out and weed through facts, deciding which facts are relevant and which are not. Sometimes facts come from the client. Other facts must be found in documents or from discussions with third parties. The relevant facts can change as the developed facts lead to a different legal issue. In other words, fact-finding is an iterative process in which the facts inform the legal issues and the legal issues determine which facts are important. The attorney must be able to maneuver through numerous fact-issue combinations, analyzing as he works, until he has reduced both facts and issues into the most likely combination or combinations for success.

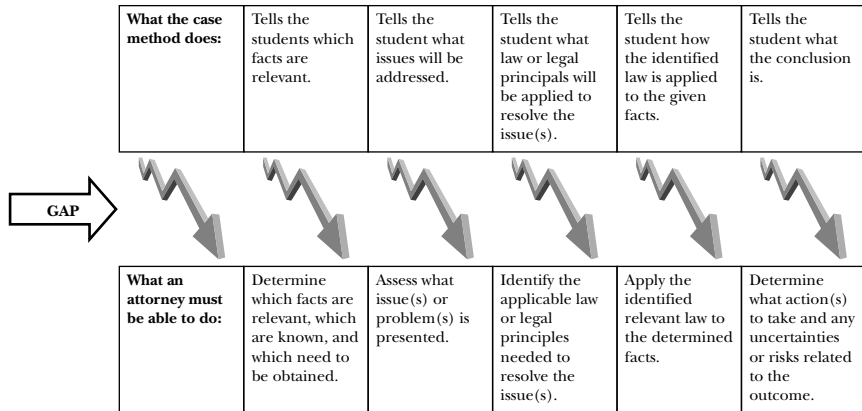
He may have to research the issue, determine how similar situations were treated, or realize that there is no law directly on point. This process of fact gathering, issue spotting, analyzing, and researching rarely leads the attorney to a clearly laid out conclusion or definitive course of action. More often, the attorney identifies various courses of action, evaluates associated risks, and carefully considers whether pursuing the various courses of legal action are worth the associated time and costs.

C. *The Gap*

When comparing the case method approach to learning during law school vis-à-vis what an attorney is expected to do in practice, a definite gap materializes.

⁶ Friedland, *supra* note 4, at 29; Holmes, *supra* note 4, at 546–49; Campbell, *supra* note 4, at 13.

⁷ Hoffman, *supra* note 2, at 643.



It becomes apparent that when the case method is used for instruction, a student is not given the opportunity to develop the skills necessary to work through a legal issue on his own from the moment the client walks in the door to when the issue is resolved.⁸ Rather, with an opinion, all the work has been done, and the student is left to simply read the end product.⁹

This gap is a pretty large gap.¹⁰ To elaborate on the gap by analogy, consider the following: regardless of how many times a person has been presented with a beautifully prepared soufflé (accompanied by the recipe), the only way the person knows if he could bake one himself is to actually try to bake one, and it may take significant practice to be able to bake one with acceptable results.

⁸ See Campbell, *supra* note 4, at 5.

⁹ Holmes, *supra* note 4, at 539 (“[The case method] develops only a few of the intellectual capacities which a lawyer out to possess. Although it can be used with admirable effectiveness in the first year, the endless succession of cases throughout three years of legal education can be a narrowing experience which dulls student response to broader issues and perspectives. The case method of teaching can therefore be said to sharpen a student’s mind by narrowing it.”).

¹⁰ JAMES E. MOLITERNO, *THE AMERICAN LEGAL PROFESSION IN CRISIS: RESISTANCE AND RESPONSES TO CHANGE* 196, 225–29 (2013) (“The roots of the law schools’ troubles date from the late 19th century when both legal and medical education underwent reform and ‘scientification.’ For many reasons, the two were reformed in different ways and headed in opposite directions. Medical education decided that its mission would be to create doctors; legal education decided that its mission would be to create law professors.”); Campbell, *supra* note 4, at 5 (“[S]olving client and societal problems rarely involves just knowing doctrine . . .”).

II. FILLING IN THE GAP—RECOGNIZING THE DIFFERENCE BETWEEN “KNOWING” AND “DOING”

A. *Passive Learning Moves Information from Professor to Student*

No matter how engaging, entertaining, clear, or well-constructed a lecture is,¹¹ the student receiving the lecture is passively receiving information.¹² The professor processes the material, organizes it, and shapes it into information that he then transmits to the student.¹³ Similarly, no matter how well-written or well-organized a textbook is, the student reading the material is passively receiving the information.¹⁴ “*Passive learning* emphasizes learning conceptual knowledge by focusing on facts and theoretical principles.”¹⁵

From the student’s perspective, a lecture is education “happening to them.”¹⁶ He is the recipient of information that is being transmitted.¹⁷ To the extent he will be tested on this information, he can “cram” to memorize it and repeat it back on the final exam.¹⁸ This type of learning does not create deep learning, and the information

¹¹ The majority of law school courses are taught by lecture. See Henderson, *supra* note 2, at 72–74.

¹² “[E]mpirical research has shown that even in the most interesting lecture, attention levels naturally tend to drop (often dramatically) after the first 20 minutes of the presentation.” Andrea Revell & Emma Wainwright, *What Makes Lectures ‘Unmissable’? Insights into Teaching Excellence and Active Learning*, 33 J. GEOGRAPHY HIGHER EDUC. 209, 210 (2009).

¹³ DAVID NEWBLE & ROBERT CANNON, *Teaching in Large Groups*, in A HANDBOOK FOR TEACHERS IN UNIVERSITIES AND COLLEGES: A GUIDE TO IMPROVING TEACHING METHODS 1, 2–7 (3d ed. 1995); M. J. Bezuidenhout & H. Alt, ‘Assessment Drives Learning’: Do Assessments Promote High-Level Cognitive Processing?, 25 S. AFR. J. HIGHER EDUC. 1062, 1063 (2011).

¹⁴ See Danielle S. McNamara et al., *Are Good Texts Always Better? Interactions of Text Coherence, Background Knowledge, and Levels of Understanding in Learning from Text*, 14 COGNITION & INSTRUCTION 1, 2–3 (1996).

¹⁵ Sue Stewart Wingfield & Gregory S. Black, *Active Versus Passive Course Designs: The Impact on Student Outcomes*, 2005 J. EDUC. BUS. 119, 120 (2005); see also George C. Thornton III & Jeanette N. Cleveland, *Developing Managerial Talent Through Simulation*, 45 AM. PSYCHOL. 190, 196 (1990); David A. Whetten & Sue Campbell Clark, *An Integrated Model for Teaching Management Skills*, 20 J. MGMT. EDUC. 152, 156 (1996) (“[L]ecturing is an effective way to transfer facts, by presenting a wide variety of information in a relatively short period of time. However, students retain less of this material in the long run than they would if they were more highly involved in the learning process.” (citations omitted)).

¹⁶ Barbara Mezeske, *Shifting Paradigms? Don’t Forget to Tell Your Students*, 18 TEACHING PROFESSOR 1, 1 (2004).

¹⁷ See *id.*

¹⁸ See *id.*

remains with the student for only a short period of time.¹⁹ Moreover, it allows him to develop few, if any, skills that will benefit him in the practice of law.²⁰

B. *Active Learning Turns Information Into Knowledge*

Content is the means, and not the end, to learning.²¹ Moreover, content or information is not the same thing as knowledge. For information to become knowledge, a student must make meaning of the information.²² The student must actively engage with the content; he must engage in cognitive processes that require higher order thinking, which will require complex, contextualized thinking to construct meaning and create knowledge from that information.²³ For example,

¹⁹ See *id.*

²⁰ See *id.*

²¹ Bezuidenhout & Alt, *supra* note 13, at 1063; Revell & Wainwright, *supra* note 12, at 212.

²² JOHN BIGGS, TEACHING FOR QUALITY LEARNING AT UNIVERSITY 12–14 (2d ed. 2003); RICHARD W. PAUL, CRITICAL THINKING: WHAT EVERY PERSON NEEDS TO SURVIVE IN A RAPIDLY CHANGING WORLD 425 (1990) (“[T]hose who advocate critical thinking instruction hold that knowledge is not something that can be *given* by one person to another. It cannot simply be memorized out of a book or taken whole cloth from the mind of another. Knowledge, rightly understood, is a distinctive construction by the learner, something that issues out of a *rational* use of mental processes.”); Patricia K. Cross, Taking Teaching Seriously 6 (Mar. 11, 1986) (paper presented to the Annual Meeting of the American Association for Higher Education in Washington, D.C., on Mar. 11, 1986), <http://files.eric.ed.gov/fulltext/ED268849.pdf> (“No wonder that employers, states, and the nation are so interested in an educational system that will result in people who have ‘idea power.’ Ideas are far more important to our world than information which has become both plentiful and cheap.”).

²³ L. DEE FINK, CREATING SIGNIFICANT LEARNING EXPERIENCES: AN INTEGRATED APPROACH TO DESIGNING COLLEGE COURSES 30 (2003); Bezuidenhout & Alt, *supra* note 13, at 1063; Jan Herrington & Ron Oliver, Using Situated Learning and Multimedia to Promote Higher-Order Thinking 2 (June 1998) (paper presented to the World Conference on Educational Multimedia and Hypermedia and the World Conference on Educational Telecommunications in Freiburg, Germany, on June 20–25, 1998), <http://files.eric.ed.gov/fulltext/ED428672.pdf> (quoting Lewis & Smith, *supra* note 3, at 136 (“Higher-order thinking occurs when a person takes new information and information stored in memory and interrelates and/or rearranges and extends this information to achieve a purpose or find possible answers in perplexing situations.”)). Receiving information is not the same thing as learning. BIGGS, *supra* note 22, at 12–17; FINK, *supra* note 23, at 27–59. Learning involves “making meaning of information.” BIGGS, *supra* note 22, at 12–17; FINK, *supra* note 23, at 27–59. Making meaning refers to developing connections between existing knowledge and new information—constructing and reconstructing knowledge to make it meaningful. BIGGS, *supra* note 22, at 12–17; FINK, *supra* note 23, at 27–59.

the student must be presented with the opportunity to discern which information or content would be applicable to a specific situation.

A student who processes information at a deeper level will remember the information better than a student who processes information at a shallow level.²⁴ For deep learning to occur, more has to happen than the student showing up for the lecture.²⁵ “Deep learning occurs when students are able to consider information or ideas from different viewpoints to solve problems, use decision-making skills to arrive at conclusions, can make applications in varying contexts, and use initiative to explore new knowledge.”²⁶

Knowledge that is available to assist with problem solving is better than information that has merely been memorized.²⁷ The ability to understand where relevant facts can be found and how to organize them is better than being given a fact pattern.²⁸ The ability to discern when a rule applies to a set of facts and when it does not is better than creating an outline.²⁹ In short, creating an active learning environment allows a student to engage in deep learning, develop knowledge

Active learning is consistent with constructivism, the learning theory in which knowledge is internalized by learners. For more information on the constructivism theory, see Michael Hunter Schwartz, *Teaching Law By Design: How Learning Theory and Instructional Design Can Inform and Reform Law Teaching*, 38 SAN DIEGO L. REV. 347, 379–82 (2001). One of the attributes of constructivism is its focus on “preparing the learner to problem solve in ambiguous situations.” Ronald Noel Beyers, *A Five Dimensional Model for Educating the Net Generation*, 12 EDUC. TECH. & SOC’Y 218, 223 (2009). To the extent the information is being interpreted for the student, i.e., in a teacher-centered classroom where much of the information is transmitted by lecture, the professor generates little interaction and little opportunity for the students to construct knowledge. *See id.* In addition, the students are less likely to be engaged. *See id.*

²⁴ Isabelle D. Cherney, *The Effects of Active Learning on Student Participation: A Model for Improving Lecture Efficiency and Increasing Attendance*, 9 ACTIVE LEARNING IN HIGHER EDUC. 151, 153 (2008).

²⁵ Keith Jakee, *Overhauling Technical Handouts for Active Student Participation: A Model for Improving Lecture Efficiency and Increasing Attendance*, 23 INT’L J. TEACHING & LEARNING IN HIGHER EDUC. 98, 98–99 (2011).

²⁶ Bezuidenhout & Alt, *supra* note 13, at 1074 (citing ROY KILLEN, TEACHING STRATEGIES FOR QUALITY TEACHING AND LEARNING 20 (2010)).

²⁷ Luke Towler, *Deeper Learning: Moving Students Beyond Memorization*, NEA TODAY (Nov. 25, 2014), <http://neatoday.org/2014/11/25/deeper-learning-moving-students-beyond-memorization-2/>.

²⁸ Roberto L. Corrada, *‘Ill-Structured’ Simulations in Two American Law Classes: Labour Law and Administrative Law*, in LEGAL EDUCATION: SIMULATION IN THEORY AND PRACTICE 256–57 (Caroline Strevins et al. eds., 2014).

²⁹ Robin A. Boyle, *Employing Active-Learning Techniques and Metacognition in Law School: Shifting Energy from Professor to Student*, 81 U. DET. MERCY L. REV. 17, 19–20 (2004).

and skills associated with the substantive area,³⁰ and demonstrate the depth of his knowledge through the application of skills.

In sum, when a student is actively involved in the learning process, he is in a position not only to engage in deep learning, but also to acquire important skills.³¹ More importantly, those skills will be learned in the context in which they subsequently will be used.

This does not mean the lecture must or should be abandoned. Students are expected to prepare for class by completing all assignments and mastering the necessary rules, definitions, and case holdings. The professor can use the assigned material to guide the learning process and make sure the necessary content is understood.³² But receiving content should be recognized as just one step in the process of acquiring knowledge. Content and information allow the student to pass a traditionally taught course.³³ Knowledge and skills allow the student to become an attorney.³⁴

³⁰ *Id.*; Cherney, *supra* note 24, at 154–55; Gerald F. Hess, *Heads and Hearts: The Teaching and Learning Environment in Law School*, 52 J. LEGAL EDUC. 75, 81 (2002) [hereinafter Hess, *Heads and Hearts*]; Gerald F. Hess, *Listening to Our Students: Obstructing and Enhancing Learning in Law School*, 31 U.S.F. L. REV. 941, 943 (1996) [hereinafter Hess, *Listening to Our Students*]; Paula Lustbader, *From Dreams to Reality: The Emerging Role of Law School Academic Support Programs*, 31 U.S.F. L. REV. 839, 854–55 (1996); Paul D. Umbach & Matthew R. Wawrzynski, *Faculty Do Matter: The Role of College Faculty in Student Learning and Engaging*, 46 RES. HIGHER EDUC. 153, 175 (2005).

³¹ PAUL, *supra* note 22, at 421–28; see Cori Fata-Hartley, *Resisting Rote: The Importance of Active Learning for All Course Learning Objectives*, 40 J. C. SCI. TEACHING 36, 36 (2011).

³² The lecture can be as effective as other methods for promoting mastery of content. See generally KATE EXLEY & REG DENNICK, *GIVING A LECTURE: FROM PRESENTING TO TEACHING* (2004). However, the limits on the ability of a lecture to convey information should also be understood.

³³ Scott V. Franklin et al., *Traditionally Taught Students Learn; Actively Engaged Students Remember*, 82 AM. J. PHYSICS 798, 801 (2014).

³⁴ “Pedagogic scholars have thus shifted away from this traditional view and now emphasize the lecturer as a *facilitator* rather than teacher, whose primary role is to give students the tools to learn for themselves.” Revell & Wainwright, *supra* note 12, at 211.

C. *Bringing Active Learning and Skills Building Into the Classroom*

A student does not develop skills just because he is attending class.³⁵ Skills must be intentionally incorporated as part of an active learning environment.³⁶

Skills often are viewed as separate from content learning, and course offerings are divided between doctrinal and skills courses.³⁷ This dichotomy makes no sense in light of the connection between active learning, knowledge, and skills.³⁸ Nor does the inclusion of a distinct “skills component” in a doctrinal class make any sense. Skills acquisition is a by-product of active learning and knowledge.³⁹ It is part of the process of content, instruction, and learning and is not a separate activity.⁴⁰ The professor must create an active learning environment in which the student has an opportunity to acquire knowledge and skills in a seamless and fluid manner, even as the professor is using one to enhance learning of the other. The professor must intentionally create the opportunity for students to develop skills as part of the instructional fabric of the course. While the focus of classroom instruction need not always be on skills,⁴¹ skills are not a patch to be stitched over an abstract and unconnected problem that exists only outside of the classroom, an inconvenient addendum. Rather, skills are the active and intentional use of knowledge.

If students are to emerge from law school with practice ready skills, they must be given an opportunity to learn and practice a variety of skills and to develop the necessary qualities that will allow them to effectively and efficiently enter into the practice of law. The following are some examples of how active learning, knowledge, and skills become part of a doctrinal classroom, seamlessly woven into the deeper

³⁵ Hess, *Listening to Our Students*, *supra* note 30, at 943; Maryellen Weimer, *Targeted Skill Development: Building Blocks to Better Learning*, *FACULTY FOCUS* (Oct. 22, 2012), <http://www.facultyfocus.com/articles/teaching-professor-blog/targeted-skill-development-building-blocks-to-better-learning/>.

³⁶ Hess, *Listening to Our Students*, *supra* note 30, at 943.

³⁷ See Boyle, *supra* note 29, at 5.

³⁸ See BENJAMIN S. BLOOM, *TAXONOMY OF EDUCATIONAL OBJECTIVES* 38–39 (1969); LORIN W. ANDERSON & DAVID R. KRATHWOHL, *A TAXONOMY FOR LEARNING, TEACHING, AND ASSESSING: A REVISION OF BLOOM’S TAXONOMY OF EDUCATIONAL OBJECTIVES* 27–37 (2001).

³⁹ BLOOM, *supra* note 38, at 38–39.

⁴⁰ *Id.*

⁴¹ The professor can shift the focus of instruction from substance to skills to a combination of skills and substance as often as needed during any one class period.

learning process. Undoubtedly, a professor, familiar with a content area, could not only expand on these ideas, but also think of many more. With the gap being so large, there is a lot of room for a professor to be creative.

Because it is difficult to see an example at work in a subject matter the professor does not teach, the examples will be based on the following “statute:”⁴²

A Child’s Bedtime Rules. Except for weekends, holidays, birthdays, and days when the grandparents are visiting, if the child is under eight years old or is getting too many low grades, bedtime is 8:00 p.m.

1. Story Board

The opinions included in casebooks, if not the end of the legal story, are close to it. This is the exact opposite of how a case will develop for the attorney. Students must be given the opportunity to be a participant in a case from the beginning, which allows them to work to develop and unfold the case and acquire the skills needed to do so as they work.

The story begins as the client sits across from the attorney, explaining why he is there. From the facts given to him by the client, the attorney needs to take up an iterative process of trial, error, and exploration as he uncovers additional facts, considers and abandons legal issues, and weighs risks associated with each avenue of analysis.

To create an opportunity to experience this process, the professor invents a set of facts that may lead to different outcomes, depending on the additional facts developed. The students are then given the opportunity to brainstorm⁴³ which facts they would want to know and, more importantly, why they would want to know these facts. The professor facilitates the process by providing the requested facts and allowing the story to unfold through inquiry.

The professor also assists in the consideration of various issues, encouraging the students to abandon those determined to be inappli-

⁴² Many thanks for Professor Buttrey of Western Michigan University-Cooley Law School for allowing me use of a statute that she created and modified for this Article.

⁴³ Z. Zayapragassarazan & Santosh Kumar, *Active Learning Methods*, 19 NTTC BULLETIN 3, 3 (2012) (“One of the reasons [brainstorming] is so effective is that the brainstormers not only come up with new ideas in a session, but also initiate associations with other people’s ideas by developing and refining them. Students can use this session as an opportunity to make connections, freely associate, and recognize that they have been engaging with the topic in ways they may not have been aware.”).

cable and to continue to pursue those that have merit. For a particularly interesting problem, the professor creates a story that, as the facts are developed, would mirror those in a case to be assigned. What better way to actively learn the rules and carry out an analysis than for the students to see their own process of inquiry and analysis dovetail into a legal opinion?

Not all legal problems involve plaintiffs and defendants. Some involve planning or transactional work. These areas of law provide endless possibilities for working through interesting problems, with the students learning how to apply the rules they are learning. The professor creates a hypothetical situation in which the client has identified an objective. After sufficient facts are developed, the students brainstorm solutions and explain how the law would be applied to the facts to bring about the desired result. Once all potential solutions are identified, the students rank them based on their ability to meet the client's objective and their associated costs, risks, and merits. Finally, the students must explain the solutions to the client. What better way to understand how a rule works than to see it working in a variety of contexts with a variety of results and to hear it explained in a manner that a client would understand?

Not all problems that clients bring to the attorney can be resolved by the mere application of rules to the facts. Clients may arrive with biases, misperceptions, and unreasonable goals that cannot be supported by or achieved through application of the law. The client and his objective may also raise ethical issues. The creation of such fact patterns gives the students an opportunity to work through such partially, legally grounded issues, helping students to appreciate the "human" element in the work they will be expected to do.⁴⁴

For example, the students could be given the following facts and asked to develop a list of the top five questions they would want to ask the client to be able to apply "A Child's Bedtime Rules Statute" and determine the child's bedtime.

Today is Natasha's birthday. She dislikes having a winter birthday because the weather is always so cold. In fact, a storm has been predicted

⁴⁴ Issues designed for students to resolve should not be more complicated than the students are able to accomplish. With vastly more knowledge and experience, it is easy for the professor to create a problem that requires a substantive understanding or skill set beyond what the student has obtained. It may be helpful to think of storyboard problems as being slightly more difficult than problems the students have previously solved.

for the evening. Even so, she has asked for an ice cream cake and knows one is in the freezer. Max (the child at issue) has worked diligently on his math homework for tomorrow's class. This is no surprise as math has always been his favorite class. When he finishes with his math homework, he plays tag with Buster, the family dog.

2. The Checklist

To create a checklist, the student must view the information from a different perspective. It must no longer be about memorizing a variety of concepts strung together along a logic stream, but instead must be about transforming information into functional, practical, and usable concepts. A student who has transmuted the information acquired in class into a checklist has gained a different and greater depth of understanding of the material.

Given its practical focus, the checklist can move forward with the student into his law practice.⁴⁵ It can be used to gather information from the client and to provide the building blocks for any legal argument he wants to pursue or document he must create, positioning him to yield the best work product possible. Moreover, it can be revised as needed based on any fluctuations in the law or the attorney's practice, making it a fluid and functional document.

There is a surfeit of information about the benefits of checklists, even for the most mundane or routine tasks.⁴⁶ The World Health Organization (hereinafter "WHO") asked a team of international medical experts in the areas of surgery, anesthesia, nursing, and patient safety to create a checklist to improve results in the operating room.⁴⁷ The team published guidelines recommending practices to ensure the safety of surgical patients.⁴⁸

In 2008, as part of a pilot program, a team of doctors used the WHO guidelines to create a checklist, the WHO Surgical Safety Checklist, and studied the use of the checklist in operating rooms in eight

⁴⁵ While an important guide to an area of law, an outline fails to identify what information the student should be obtaining from his client to process through the situation.

⁴⁶ See, e.g., Andy Singer, *Seven Management Benefits of Using a Checklist*, HARTFORDBUSINESS.COM (June 23, 2014), <http://www.hartfordbusiness.com/article/20140623/PRINTEDITION/306199955/seven-management-benefits-of-using-a-checklist>.

⁴⁷ *Safe Surgery*, WORLD HEALTH ORG., www.who.int/patientsafety/safesurgery/en/ (last visited Mar. 2, 2016).

⁴⁸ *Id.* (follow "WHO Surgery Safety Checklist" hyperlink).

diverse hospitals.⁴⁹ In those hospitals, complications and mortality were reduced by more than one-third.⁵⁰ This checklist is now used in operating rooms around the world.⁵¹

Dr. Gawande, who was on both the team responsible for designing the WHO guidelines and the team conducting the pilot program, expanded on the concept after a visit to The Cheesecake Factory®.⁵² He noted that The Cheesecake Factory® provides a dizzying array of food and drink options.⁵³ When Dr. Gawande asked how much of the food was pre-made, he learned that most of the menu options were made from scratch.⁵⁴ Dr. Gawande equated the efficiency of offering a variety of standardized menu options to the range of standardized services offered by a hospital.⁵⁵ He also noted that in both instances, the offerings needed to be made to many people at a reasonable cost and with a consistent level of quality.⁵⁶ The Cheesecake Factory® accomplished this result through a precise system of creating food by following standardized recipes, which include a list of ingredients and preparation steps, and by viewing a photo showing the proper presentation of the menu item.⁵⁷ While the recipes were precise, he learned that the creation of menu items also required input from the cook, an input that could not be reduced to instructions.⁵⁸

A law firm could aspire to the same goal: offer a range of standardized services to its clients at a reasonable cost and with a consistent

⁴⁹ Alex B. Haynes et al., *A Surgical Safety Checklist to Reduce Morbidity and Mortality in a Global Population*, 360 *NEW ENG. J. MED.* 491, 492–93 (2009).

⁵⁰ Postoperative complications fell by 36%. *Id.* at 495–96. The rate of complications from surgery dropped from 11% to 7%. *Id.* The rate of in-hospital deaths dropped from 1.5% to .08%. *Id.*

⁵¹ *Safe Surgery Saves Lives Frequently Asked Questions*, WORLD HEALTH ORG., http://www.who.int/patientsafety/safesurgery/faq_introduction/en/#Q4 (follow “Does WHO have evidence that using the Checklist has any benefit?” hyperlink; then follow “Have other studies supported the findings of the pilot study?” hyperlink) (last updated Aug. 2014) (noting that in addition to the initial study conducted in Canada, India, Jordan, New Zealand, the Philippines, Tanzania, the United Kingdom, and the United States, there had also been successful studies in Norway, Liberia, and the Netherlands).

⁵² Atul Gawande, *Big Med: Restaurant Chains Have Managed to Combine Quality Control, Cost Control, and Innovation. Can Health Care?*, *THE NEW YORKER* (Aug. 13, 2012), <http://www.newyorker.com/magazine/2012/08/13/big-med>.

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

level of quality. Each service could be represented through a standardized checklist of necessary facts and steps to be taken. However, while standardized, the services would still require a significant amount of input from the attorney.

A student who graduates from law school with a wide array of well-designed checklists not only has a better understanding of the interplay of facts and legal issues, but also is better positioned to begin a law practice. While an outline is static, organized by topic and subtopic, a checklist is designed to allow him to directly interact with the client on a project-by-project basis, guiding him through the process of obtaining information from the client and identifying the steps he must take.

Based on the above “A Child’s Bedtime Rules Statute,” the following checklist could be created:

Information to be obtained from the client about the day at issue:

- Date
- Day of week
- Holiday, such as a birthday?
- Location of grandparents
- Child’s age
- Child’s grades

3. Concept Map

A concept map is a visual diagram showing links between and among important related concepts.⁵⁹ A student can use a concept map to clarify what he has read and heard by creating a visual representation of key terms around a central idea or concept.⁶⁰ In addition, the process of creating a concept map requires the student to use prior knowledge to integrate new information and represent it in a way that differs from how it was received.⁶¹ To construct the map, he must be actively engaged with the content—if he does not truly understand the concepts in a subject area, he probably cannot construct a concept map.

⁵⁹ See *What Are Concept Maps?*, CARNEGIE MELLON, <http://www.cmu.edu/teaching/assessment/howto/assesslearning/conceptmaps.html> (last visited Mar. 2, 2016).

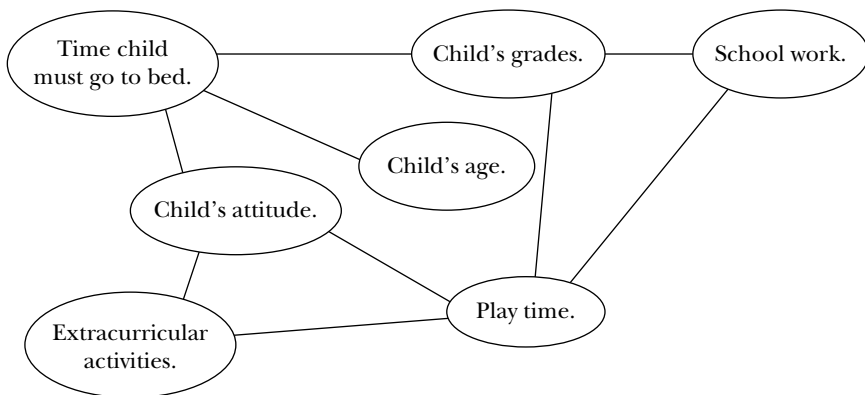
⁶⁰ See *id.*

⁶¹ See JOSEPH D. NOVAK, *LEARNING, CREATING, AND USING KNOWLEDGE* 32–38, 230–31 (2d ed. 1998).

Students often struggle with concept maps, as they tend to understand law school material only as it relates to a hierarchical format, which is the same format they would use when creating an outline. Instead of showing main topics and related subtopics, a concept map is intended to identify relationships between various concepts, without a hierarchy.⁶² It merely shows when there is a relationship between topics.⁶³ Moreover, the topics covered in a single concept map are not limited to a single course topic, meaning the map could show relationships between a variety of subject areas.

While understanding topics and related subtopics as presented in a law school course is important, it is unlikely that issues the student will see in practice will arise as seen in a casebook chapter or law school outline. It is more likely that the student will have to identify relationships between issues, facts, and areas of law. Beginning to develop now the thought process he will need later to identify those kinds of relationships will put him in the best position possible when he begins the practice of law. More specifically, when a client seeks an attorney's help in resolving a problem, the attorney will have more resources to utilize than just finding the place in his outline where one of many issues may fall. Through the use of concept maps, he will be able to see the much larger and more important picture of the relationship between the issues.

Based on the above "A Child's Bedtime Rules Statute," the following concept map could be created:



⁶² JOSEPH D. NOVAK & ALBERTO J. CAÑAS, FLA. INST. FOR HUMAN & MACH. COGNITION, THE THEORY UNDERLYING CONCEPT MAPS AND HOW TO CONSTRUCT AND USE THEM 1-3 (2008), <http://cmap.ihmc.us/docs/pdf/TheoryUnderlyingConceptMaps.pdf>.

⁶³ *Id.*

4. Flowcharts and Decision-Making Trees

A flow chart or decision-making tree is a pictorial of the sequentially ordered decisions that must be followed to work through a particular area of law, either to an end result or series of options.⁶⁴ It is a tool for analysis processing.⁶⁵ Each process is broken down into individual events, and the chart shows the logical relationships between them.⁶⁶

Flowcharts help clarify a situation and improve knowledge and understanding by making the process or steps clear and logical.⁶⁷ The flowchart guides the attorney through the steps, pointing him in the right direction as he acquires information and facts and makes decisions about the impact of those facts.

To create a flow chart or decision-making tree, the student must understand the connection between an area of law and the facts that drive that area. Moreover, the process of constructing a flowchart enables the student to better understand the process of applying a concept.

A flowchart allows the student to work through an issue with a client in a way that could never be achieved with an outline. Rather than looking at a summary of the law in a particular area, the flowchart would trigger specific facts that need to be obtained, the implications of those facts, and the next decision to be made. As he works through the flow chart, he eliminates pathways, continues down others, and eventually concludes with a result or series of options.

Although the student learned the law in class, the facts gathered from the client will dictate how that law will be applied. Creating a flow chart allows the student to begin to see clearly and unambiguously which facts are relevant and when they are relevant.

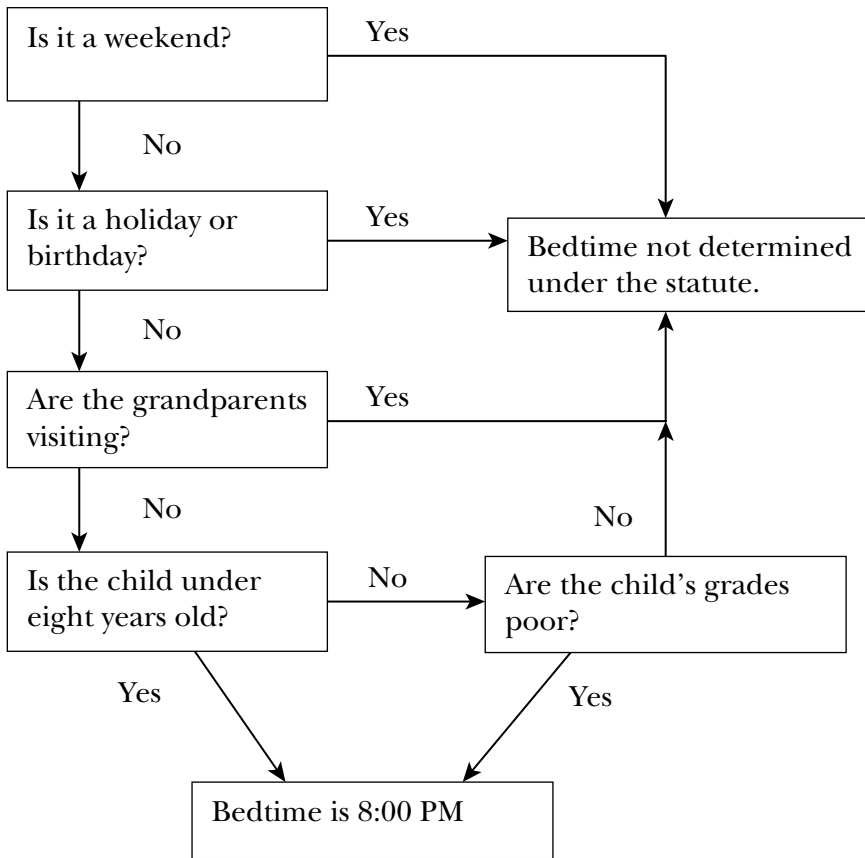
Based on the above "A Child's Bedtime Rules Statute," the following flowchart could be created:

⁶⁴ See *What is a Process Flowchart?*, ASQ, <http://asq.org/learn-about-quality/process-analysis-tools/overview/flowchart.html> (last visited Mar. 2, 2016).

⁶⁵ See *id.*

⁶⁶ See *id.*

⁶⁷ See *id.*



III. CONCLUSION

While lecturing has been a staple in the law school classroom, it comes with limitations. The most important limitation is that it does not create an opportunity for students to actively engage with the content or acquire the skills they will need to practice law.⁶⁸ Those who resist moving away from the lecture format often complain that they have too much material to cover to engage in other activities during class time.⁶⁹ Hopefully, these same professors will begin asking themselves whether it is beneficial to deliver increasing amounts of information to the students without giving them a means to turn that information into knowledge or to develop the skills the students will need to apply that information in practice.

⁶⁸ See Judith Lihosit & Jane Larrington, *Flipping the Legal Research Classroom*, 22 PERSP.: TEACHING LEGAL RES. & WRITING 1, 3 (2013).

⁶⁹ See *id.*

To enable the students to develop critical thinking skills and be practice ready, the classroom focus needs to shift from information delivery to knowledge and skills acquisition surrounding that information. With a myriad of options available to the professor to create active learning environments for the students, providing the students the opportunity to develop critical thinking skills and become practice ready, perhaps the next best question that needs to be asked is: *why should such opportunities not be taken?*