## THE PROBLEM METHOD: NO SIMPLE SOLUTION

#### By Shirley Lung†

#### Introduction

It is a refreshing development within legal education that greater numbers of law professors creatively experiment with problem-based learning to provide explicit instruction in legal analysis and practice-oriented skills.<sup>1</sup> Even more exciting, this experimentation is not the exclusive province of clinical courses; it occurs increasingly in standard core and elective courses that have been traditionally doctrine-centric.<sup>2</sup> Further, the 'problem method' and other forms of problem-based learning are being introduced sooner in the law school curriculum, including large first-year doctrinal classes.<sup>3</sup> As the problem method moves into the mainstream of legal pedagogy, law teachers must anticipate potential problems with it. An awareness of

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L. REV. 245 (2000) (teaching civil procedure almost exclusively through the problem method); William A. Kaplin, *Problem Solving and Storytelling in Constitutional Law Courses*, 21 SEATTLE U. L. REV. 885 (1998) (reviewing DANIEL A. FARBER ET AL., CONSTITUTIONAL LAW: THEMES FOR THE CONSTITUTION'S THIRD CENTURY (1993)) (use of problems and stories to overcome three of the most difficult challenges in teaching constitutional law).

<sup>†</sup> Associate Professor of Law, City University of New York School of Law; B.A., Cornell University, 1981; J.D., New York University School of Law, 1985. I am indebted to my colleague Ruthann Robson for generously offering her support, knowledge, and time; her suggestions during our discussions of the problem method, as well as her invaluable and extensive comments on an earlier draft contributed significantly to this Article. I also extend deep thanks to my colleague Susan Bryant for her detailed and useful comments on a draft of this Article. I express deep gratitude to Allie Robbins and Alissa Hull for their outstanding research assistance, and willingness to share their passionate ideas about law school pedagogy with me.

<sup>1.</sup> See generally Arturo López Torres, MacCrate Goes to Law School: An Annotated Bibliography of Methods for Teaching Lawyering Skills in the Classroom, 77 NEB. L. REV. 132 (1998) (surveying the legal literature addressing the use of the problem method and other forms of problem-based learning in law school courses).

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to teach in response to diverse learning styles. Yet, as one educator aptly notes, "legal education actually knows very little about self-motivated learning or learning styles." Traditional legal education tends to favor students of certain learning styles, usually students who have the same learning styles as their professors, and more research is needed to address differences in learning styles based on culture and cultural identity. Some law professors, fortunately, are sounding the notion that law professors must approach teaching as an academic discipline as part of their professional responsibilities. There is a budding norm that law professors should acquaint themselves with basic learning theory in order to better help their students to become self-directed learners, and to use teaching methods that reach students of all different learning styles.

These three converging developments—substantive, demographic, and professional—lend an air of urgency to the task of reassessing contemporary legal education. Consequently, law professors have begun to show greater willingness to alter the status quo in legal education by incorporating the problem method<sup>33</sup> and

<sup>29.</sup> Randall, supra note 25, at 69.

<sup>30.</sup> See Schwartz, supra note 9, at 362 (arguing that law professors assume all students should be taught in the same way, and thus find the notion that they should tailor their teaching to the needs of diverse student backgrounds to be troubling); Randall, supra note 25, at 103 ("[u]nderstanding learning styles can help legal educators understand the thought processes of law students who are quite different from themselves"); Paula Lustbader, Walk the Talk: Creating Learning Communities to Promote a Pedagogy of Justice, 4 SEATTLE J. SOC. JUST. 613, 619 (2006) (criticizing the typical Socratic dialogue for privileging extroverts and auditory/verbal learners over introverts and reflection/observer learners). Lustbader also maintains that the traditional Socratic method "only teaches one type of intelligence—mathematical-logical—and ignores other, arguably equally important, types of intelligence such as inter- and intra-personal." Id.

<sup>31.</sup> See Randall, supra note 25, at 69–70. For a brief review of some research examining the effect of cultural differences on learning styles, see Dennis M. McInerney, *The Motivational Roles of Cultural Differences and Cultural Identity in Self-Regulated Learning, in* MOTIVATION AND SELF-REGULATED LEARNING 369, 376–89 (Dale H. Schunk & Barry J. Zimmerman eds., 2008).

<sup>32.</sup> See Feinman & Feldman, supra note 25, at 895 ("Like our theories of law and lawyering, our theory of learning must be more than platitudinous and anecdotal; it must be systematic, conceptual, and rigorous."); see generally sources cited supra note 25; Schwartz, supra note 9; Roach, supra note 9; Saunders & Levine, supra note 4. Additionally, Feinman and Feldman actively criticize legal educators as "anti-intellectual about the area of their primary professional concern: the content and method of legal education." Feinman & Feldman, supra note 17, at 875.

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problem method that deepens learning for students of diverse backgrounds, academic skills, and learning styles.

Part I of the Article examines the drawbacks of the case method at its worst application as well as the promises of the problem method for teaching analytical skills and advancing self-directed learning. Part II investigates how the problem method may reproduce some of the pitfalls of the case method; it also explores why the problem method offers no simple solution to the challenge of helping students construct knowledge that they can readily transfer to new situations. Part III discusses specific teaching strategies to help students make the transition from novice problem solving to more expert problem solving. These strategies focus on building the ability of students to generalize their learning in order to develop the skill of transferring knowledge, and empowering students to adopt metacognitive<sup>37</sup> learning strategies to become self-directed learners.

# I. THE CASE METHOD AT ITS WORST, THE PROBLEM METHOD AT ITS BEST

## A. The Case Against the Case Method

Criticism of the case method is now commonplace in the literature on legal education. While not all those who address the topic uniformly agree the case method should be abandoned,<sup>38</sup> there are standard complaints. Most law professors purport to use the case method to impart analytical skills such as case reading, issue spotting, fact analysis, policy analysis, application, theory, and synthesis. Students are also expected to learn how to craft persuasive arguments, assess alternative positions, and exercise clinical judgment from reading and dissecting case opinions. Yet a significant failure of the case method by many accounts is that frequently it is doctrine-centric

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<sup>37.</sup> Metacognition refers to a learner's self-awareness about his or her own thinking and learning process, and involves the ability to control, regulate, and adapt one's learning to meet the specific demands of a particular task performance. Saunders & Levine, *supra* note 4, at 141–42.

<sup>38.</sup> In fact, a number of my colleagues at CUNY Law creatively utilize the case method to teach legal analysis and practice-oriented skills by combining it with in-role exercises, mock oral arguments, small group work on hypos and problems, and mapping exercises. *See* Peggy Cooper Davis, *A Dialogue About Socratic Teaching*, 23 N.Y.U. REV. L. & SOC. CHANGE 249 (1997) (discussing whether and how the classic Socratic case method may be reformed to develop legal reasoning skills and metacognitive learning).

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rather than skills- or practice-oriented.<sup>39</sup>

The case method may disempower students in that many of the analytical skills that are tested on exams are not usually explicitly taught. <sup>40</sup> This view is articulately summarized by one legal educator as follows:

One criticism of the case method centers on its failure to teach analytical skills explicitly as part of doctrinal course work. For example, students are urged to "think precisely," to draw analogies, and to distinguish or rectify contradictory holdings while learning the rules and doctrines of a body of law. Despite the professed attention to analytical skills as part of doctrinal courses, however, these courses inevitably lead students to emphasize "blackletter" rule memorization over methodology.<sup>41</sup>

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rub off on all the students in the class."54

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alternative arguments.<sup>68</sup> Thus, the problem method can shape learning so that it comports with the needs of future practice;<sup>69</sup> students undertake learning in their role as future lawyers, not only as test-takers.<sup>70</sup>

Third, legal educators maintain that the problem method facilitates self-directed student learning.<sup>71</sup> Self-directed learning is perhaps the most significant pedagogical benefit of the problem method because it develops the skills to go beyond current knowledge to create new knowledge for new situations.<sup>72</sup> Self-directed learners are better able than passive learners to adapt and apply knowledge to new situations.<sup>73</sup> The benefits of the problem method noted earlier are likely to be more fully realized if teachers use the problem method to promote self-directed learning.

Self-directed learning refers to the processes by which students learn to "make their learning relevant to their own educational needs." This consists of "defining what should be learned, identifying one's own learning needs, developing learning objectives, identifying a plan to achieve those objects, successfully implementing the plan, and self-evaluating the effectiveness of the learning." In

<sup>68.</sup> Discussion with Ruthann Robson, Professor of Law and University Distinguished Professor, The City University of New York School of Law, in Flushing, N.Y. (June 12, 2008).

<sup>69.</sup> See Ann C. Myers Kelson & Linda H. Distlehorst, *Groups in Problem-Based Learning (PBL): Essential Elements in Theory and Practice, in PROBLEM-BASED LEARNING, supra* note 62, at 173–74 (discussing how a PBL curriculum shapes learning so that "learning is undertaken in a manner compatible with future practice").

<sup>70.</sup> This is not suggesting that the problem method does not serve important test-taking goals or practice for students. Indeed, working on problems helps students to perform more successfully on law school exams.

<sup>71.</sup> See Warkentine, supra note 3, at 118–120; Cruickshank, supra note 11, at 202–03; Shapiro, supra note 3, at 262–63 (explaining that with the problem method students try to answer problems before they get to class and they are likely to spend more time preparing for class than under the case method).

<sup>72.</sup> See Cindy E. Hmelo & Xiaodong Lin, Becoming Self-Directed Learners: Strategy Development in Problem-Based Learning, in PROBLEM-BASED LEARNING, supra note 62, at 227

<sup>73.</sup> See Diana H.J.M. Dolmans & Henk G. Schmidt, What Directs Self-Directed Learning in a Problem-Based Curriculum?, in PROBLEM-BASED LEARNING, supra note 62, at 251–52

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problem-solving scripts.<sup>94</sup> The problem method offers the promise of helping students gain both deeper comprehension of the intricacies of rules in action, and more conscious "know-how" of the mental processes and attendant skills that fall under the generic label of "legal analysis."

#### II. PROBLEMS WITH THE PROBLEM METHOD

# A. The Problem of Vicarious Learning

Fulfilling the promises of the problem method is no simple endeavor. Understandable challenges and frustrations exist on both sides of the educational process. When problems are used in the classroom to give students practice at analysis, law professors still bemoan that students have trouble spotting or analyzing issues on exams or readily applying their knowledge appropriately to id.w

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discourse with an articulated framework, the pitfalls associated with the case method are likely to be reproduced.  $^{96}$ 

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tools" at our disposal that our students do not yet have. Our "cultural setting" <sup>103</sup> may in fact lead us to the unconscious assumption that transferable knowledge is a "natural" by-product of the problem method that occurs spontaneously rather than something that is actively and laboriously constructed. <sup>104</sup>

The considerable challenges that law students face in constructing transferable knowledge should be appreciated, particularly when placed in a larger context. The difficulty of creating transferable knowledge through the problem method is widely encountered across all educational domains. Psychologists and cognitive theorists have documented that it is common for students to be unable to apply knowledge that they have previously learned to new situations when they are not given explicit cues or prompts. The dangers of "inert knowledge" knowledge that cannot be accessed or activated even though it is relevant to a particular

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same problems "dressed up" in different facts. Students did not spontaneously see the transferability of the solution principles unless the specific relationship between the problems was identified to them; the information remained inert for students who were not given a prompt.

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concepts on a prior occasion does not guarantee that the same information can be relearned efficiently at a later time. <sup>115</sup> In fact, it may take as much time to relearn that relationship as it takes to learn an altogether new relationship unless the student recognizes that the

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knowledge that is extraneous to the problem.<sup>141</sup> Thus, they can benefit immensely from teaching methods that explicitly tackle the problem of superficial learning.

#### III. FULFILLING THE PROMISES OF THE PROBLEM METHOD

The transition for law students from novice to expert problem solving is a journey for which neither clear-cut rules nor shortcuts exist. 142 No magic formulas can be revealed to teachers or students for how to teach or learn new information so that it can be readily activated. Yet it is clear that students need to acquire experience in learning to structure knowledge in ways that support their ability to comprehend and recall information, draw inferences, screen information, and ultimately, to transfer what they have learned to new situations. 143 Law teachers should experiment with teaching strategies that facilitate students' abilities to structure, store, and transfer knowledge from the problem method.

My suggestions to teachers for helping students to profit from the problem method are: (A) guide students toward deep problem structure by focusing them on "getting started," "getting oriented in the right direction," "identifying the main connections and intersections," and "mapping the route;" and (B) prompt students to learn through metacognitive strategies by prompting them to internalize habits of self-questioning, prompting them with writing and visual representations, prompting them with a sequence of problems, and prompting and re-prompting them with feedback.

# A. Guiding Students Toward Deep Structure

## 1. Getting Started

To help law students build a "bridge to carry their learning", 144

<sup>141.</sup> Krieger, supra note 84, at 177.

<sup>142.</sup> See Voss, supra note 85, at 275 ("[T]here are no rules or short-cuts that enable a person to become an effective problem solver.").

<sup>143.</sup> See Weinstein, supra note 118, at 50 (emphasizing that law students will learn to think like lawyers in solving problems not by learning rules in the abstract, but by "gain[ing] experience with doing something with those ideas"). Weinstein details critical differences between how novice and expert lawyers cognitively process problems in terms of recall of information, problem representation, establishing goals for using information, and testing hypotheses. See id. at 24–40.

<sup>144.</sup> See Greenebaum, supra note 60, at 86.

or types of problems within a doctrinal or subject area. A teacher may provide these preliminary questions or enlist students to jointly develop them. Good reasons may underlie either choice, and the process of generating and using these questions is dynamic. A teacher may decide to give the questions to the students for a particular class of problems within a doctrinal area that is conceptually complex. On the other hand, a teacher may decide to use an entire class session in tasking students to generate a list of self-questioning strategies; this would actively engage students in both synthesizing a particular subject area and constructing a collective framework. The key is that the questions are a consistent preliminary starting point that is continually reinforced by the teacher; every student always has at least an initial structure from which to proceed to gain entry into the problem. 148

## 2. Getting Oriented in the Right Direction

Since weak organization of knowledge contributes significantly to the problem of inert and overly contextualized knowledge, teachers need strategies to help students go beyond the tangibles in a problem to recognize the deep structure of a problem class or type. Proper orientation of students is critical. If students orient their learning to recognize the structure of different classes of problems within a doctrinal area, they are better positioned to classify a new problem as belonging to that class or a different class. 149 When a student can appropriately classify a problem, she can more easily determine which part of her knowledge base is relevant to solving that problem.

To orient students toward comprehending, labeling, recognizing classes of problems, law teachers should encourage students to think of problem structure as relating to why and when various rules or solution strategies are triggered. These questions lie at the core of issue spotting. If students understand why and when to use particular strategies or rules, they are more likely to appropriately apply them to relevant new circumstances than when they are just told about those strategies. <sup>150</sup> Consequently, in the course of reviewing an

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<sup>148.</sup> Mitchell, supra note 86, at 284.

<sup>149.</sup> See Voss, supra note 85, at 275 (explaining that the process of problem solving requires the solver to be able to understand the language of the problem so as to be able to classify the problem). Once the problem is classified, the problem solver "needs to know what to do with the classification . . . . " Id.

<sup>150.</sup> Bransford et al., supra note 86, at 233; see Voss, supra note 85, at 279 (stating that an important component of teaching problem solving "is to teach under what conditions the

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assigned problem, a teacher might ask students to articulate why certain rules are used, and especially important, how do they know when to use those rules. Though how do you know when is difficult to answer, wrestling with this question may force students to understand the kinds of essential facts that trigger a rule or issue, and thus, the odds will be greater that she will figure out how to structure information to enable her to recognize when to use that particular rule. Getting students to identify core or essential facts helps them to

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likely to redress the injury. To focus on just one element of standing as an illustration, there are various classes of causation problems. One problem type addresses whether the presence of third parties attenuates the link between plaintiff's injury and defendant's conduct; another problem type addresses whether causation is satisfied depending on how the injury is defined or characterized. There are numerous other causation problem types.

What might it mean to help students to use an abstract frame for approaching causation problems? First, it is useful for the teacher to consciously think about causation problems in terms of "problem types" so that he is explicit in teaching problems as "problem types." Second, it is useful to ensure that students view, categorize, and articulate an assigned causation problem as one about third parties or as about how the injury should be defined, and that they know how to recognize each problem type. These abstract frames help students to structure what they learn so that a problem can be classified as one relating to the causation element of standing, and within that, relating to a specific class of causation problems. The student develops a more potent frame for understanding a concrete set of facts than merely that the assigned problem was about standing or that it was about causation.

Anything that a teacher does to get students to sort, label, classify, name, or categorize problems will strengthen the skills of abstract thinking and organization of knowledge. Explicitly linking problems to rules, elements, and problem types within elements also helps to counteract the student inclination to see problems as distinct sets of facts that are only descriptive. <sup>158</sup> If teachers continually prompt students to utilize problems to understand the structures of rules, interrelationships within and between rules, and problem types or classes, students will be positioned to actually use these rules in new situations.

Finally, it is invaluable for teachers to exploit whatever opportunities are available to gain insight into how students understand, organize, and structure what they learn from the use of

<sup>157.</sup> Specifically, whether causation is satisfied may hinge on whether the injury is defined as the denial of equal opportunity to compete for a benefit or as the denial of the benefit itself.

<sup>158.</sup> As an example, my colleague Professor Susan Bryant at CUNY Law asks students in her Evidence course to outline each federal rule of evidence. In reviewing assigned problems, she consistently asks students, as a starting point for their analysis, to locate where the problem sits by linking each problem to a specific point in their statutory outline.

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problems. Teachers can better help students to make the transition from novice to expert thinking if they understand the schemata that students use. 159 Questions that focus on "why," "what led you down that path," and "what made you think that," and techniques such as student journals, reflection memos, and "minute papers" are immensely useful tools for deconstructing student thought processes. When teachers understand the gaps in how students process information, they are in a strengthened position not only to help students adjust their learning, but to adjust their own teaching as well. 162

## 4. Mapping the Route

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Once a student determines that a problem belongs to a particular class of problems she must know what to do with it. <sup>163</sup> For this stage students must possess the requisite "procedural knowledge" in order to know how to analyze the problem. General instructions to "apply law to facts" do not capture the sequence of mental and cognitive steps that in actuality constitute "analyzing" a problem. Teachers should guide students toward developing information-processing scripts that make these steps explicit. In this way, students may comprehend at a structural level what it means to "analyze" a

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gets students to pay conscious attention to process, rather than just the correct answer. <sup>170</sup> Equally important, encouraging students to keep track of the mental steps needed for a particular kind of analysis

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of rules, phrasing of rules, comprehension of rules (or facts), problem (issue) recognition and classification, fact characterization, missing steps in the analysis, jumping too far ahead in the analysis, relationships within rules, interrelationships between rules, drawing too many inferences, or not drawing enough inferences.

Finally, teachers should include post-problem reflection as a component of the problem method. Students need to synthesize and summarize their learning from problems. For each group of assigned problems, a teacher should ask students to identify in writing the different classes of problems or problem types and recurrent fact patterns. One of my students has suggested student reflection memos on problems so that teachers can gauge how students understand assigned problems. Meta-analysis of problems reinforces deep problem structure and boosts the potential for transfer of knowledge to new situations.

#### 2. Prompting Students with Writing and Visual Representations

Students exhibit diverse learning styles for absorbing and processing information. As a result, teachers must vary their teaching methods to ensure that all students realize their learning potential. Writing and visual representations such as maps, diagrams, and charts are critical metacognitive tools that allow students to gauge what they do not understand or do not know how to do. Verbal and visual modes of organizing information are a necessary supplement regardless of whether a student is a verbal, oral, tactile, aural, or kinesthetic learner.

Until students verbalize an analysis of a problem through text or represent their analysis in some visual form, their analysis remains invisible. Assessment and reflection is difficult when an analysis is

<sup>192.</sup> See Davis, supra note 38, at 274–75 (fostering meta-analysis about problem solving).

<sup>193.</sup> *See* Schwartz, *supra* note 9, at 418 (discussing the importance of summary and review in consolidating new knowledge).

<sup>194.</sup> See id.

<sup>195.</sup> See id. at 413 (stressing the importance of "pattern recognition instruction" for issue spotting purposes).

<sup>196.</sup> See Randall, supra note 25, at 70–74; Jacobson, supra note 25, at 150–51.

<sup>197.</sup> See Randall, supra note 25, at 103.

<sup>198.</sup> See Jacobson, *supra* note 25, at 151–56, for a discussion of each of these learning styles: verbal (reading or writing text); oral (speaking); tactile (touching); aural (listening); and kinesthetic (movement). Based on my work in academic support, I have found that for students of all learning styles, verbal and visual representations reinforce the processing of information.

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confined in one's head.<sup>199</sup> In addition to "talking out" a problem (oral learners) or listening to an analysis (aural learners), students must "see" their thinking process on paper in order to diagnose with specificity their strengths and shortfalls. Students may understand information but until they are required to do something actively with that information, they cannot be sure that they possess the substance or procedures needed for analyzing a problem.

While writing may include shorter exercises, <sup>200</sup> teachers should emphasize the importance of larger writing exercises, such as problems, hypotheticals, exam questions, and information-processing scripts. These forms of writing have great diagnostic value even if a teacher does not provide individual feedback<sup>201</sup> because they force students to piece together substance, structure, relationships, and processes; students must integrate declarative and procedural knowledge. When students outline an answer to a problem, their outlines tend to focus on substantive law rather than process, structure, and connections.

Students gain more detailed diagnostic information from the process of writing an answer than from outlining one. For instance, they can identify whether they have trouble stating a rule, characterizing facts, or performing any of the required steps in an analysis. Along with their written answers, students may also be asked to identify the most important questions that surfaced during the writing process or the skill areas that they would like most to improve. Students might also be asked to encode their written answers in different colors to indicate (1) what they clearly know and are certain is correct, (2) what they think may be correct but are uncertain, and (3) what they clearly do not know is correct or incorrect. This engages them in consciously assessing what they know and do not know.

Similar to writing, visual representations of information through maps, diagrams, grids, or flow charts help students to translate

<sup>199.</sup> See Mitchell, supra note 86, at 295 (stating that "writing allows the students to see their thinking 'in front of them,' where they can examine and reflect on it, rather than doing it only 'in their heads'").

<sup>200.</sup> See Paula Lustbader, *Teach in Context: Responding to Diverse Student Voices Helps All Students Learn*, 48 J. LEGAL EDUC. 402, 413–14 (1998) for an excellent description of the different kinds of writing that can help students to monitor their learning. Shorter writing exercises include outlines, minute papers, and paraphrasing of rules.

<sup>201.</sup> Id. at 414.

<sup>202.</sup> This is a technique that my colleague Professor Mary Lu Bilek discussed at a CUNY Law faculty workshop.

content into process. These visual tools require students to wrestle with abstracting relationships, structure, process, and procedures. Students may be asked to chart, diagram, or map single rules, a doctrinal area, or either a piece of or an entire analysis. For instance, a teacher might assist the class in using either a written answer to a problem or an information-processing script to map or diagram an analysis. When students are tasked to map or diagram, it is crucial that they identify the areas of confusion that arise in performing these tasks. The process of mapping, charting, and diagramming strengthens schema-building skills by enabling students to "see" their schemas and to locate problem zones in their schemas. It also solidifies the progression of learning.

## 3. Prompting Students with a Sequence of Problems

Neither teachers nor law students should underestimate the amount of practice, repetition, and feedback it takes to move from novice to more expert problem solving. Some estimate that the transition takes thousands of hours of practice. Learning legal analysis entails stages of developmental progression in which each successive stage requires students to master specific cognitive and processing skills that build upon skills developed from previous stages. The ability of students to create transferable knowledge from the problem method should be viewed through the prism of developmental progression.

While more is usually better than less, practice should also be strategic. The amount of practice it takes to transfer learning from the problem method is a function of both diversity and reinforcement. Thus, the kinds of problems assigned should be sequenced to target specific learning needs at different stages.<sup>206</sup> In addition, repetitive practice of similar problems reinforces initial learning before students

<sup>203.</sup> See Mitchell, supra note 86, at 285 (discussing gridding or mapping all "moves" in an analysis so that students can "see" a developed schema).

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tackle harder problems or different problem types.

Enhancing the ability to "spot" the applicability of particular rules in new factual contexts is a prime goal of the problem method.

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bank of problems over time of varying levels of difficulty and diversity that students can practice on their own.<sup>222</sup> As problems are sequenced appropriately, feedback can be used to fortify learning.

#### 4. Prompting and Re-Prompting Students with Feedback

Feedback is an important ingredient that supports and motivates students to become self-directed learners. There are many opportunities to provide different kinds of feedback at various stages of the problem method. Teachers can provide feedback to students on written answers, information-processing scripts, maps, diagrams, charts, post-problem reflections, self-questioning strategies, abstract frames or one-minute papers, or in the process of "walking" a class through an analysis of a problem. Thus, there are frequent opportunities to fortify learning.

While individual feedback on written answers can potentially provide "tailor-made" guidance to students, not all feedback has to be labor intensive in order to be instructive. Teachers may use sample answers or processing scripts and checklists. In addition, teachers can foster peer feedback through structuring group work on specific tasks. Teachers may also ask students to critique their own work, and then give feedback on the students' own feedback.

Regardless of form, feedback requires forethought. To generate opportunities for feedback, teachers must engage students in different kinds of concrete tasks and thus, the tasks must be identified and planned. The key to feedback is that students must be tasked through activity in order to yield information that enables both teacher and student to assess how learning is progressing.<sup>223</sup> The information that is generated from students "doing" also forms the basis for improving teaching. Finally, it is important to remember that the content of feedback should reinforce structure, procedural knowledge, and relationships at the same time that it helps students to label and name their learning.

#### IV. CONCLUSION

The transition from novice to more expert problem solving is a complex journey that each law student must actively navigate for

<sup>222.</sup> Given there is insufficient class time to do all the kinds of practice that facilitate

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herself. Learning to transfer knowledge to new situations and problems is an "internal and highly individualized process;" it is neither easily taught nor imparted. Still, there is much that we as law teachers can do to create the conditions for our students to learn to transfer knowledge and to become self-directed learners. Time, thought, and planning about how to support and structure learning from the use of problems are necessary in order to realize the promises of the problem method. Yet the suggestions in this Article for teaching strategies, practices, and methods are not onerous to implement; they can be adapted to fit within a teacher's curricular and time constraints.

How central problem-based learning is in a curriculum depends not only on the amount of class time devoted to problems, but also on the process used in the classroom to review problems.<sup>225</sup> A teacher's conscious orientation to the problem method is a critical determinant of successful problem-based learning of any kind. Whether we use hypos or problems occasionally or all the time, we can situate students to build transfer of knowledge and to adopt metacognitive learning strategies by keeping a few basic principles in mind. We should attend to deep problem structure, think of learning as progressive, help students develop a vocabulary to pinpoint and name their strengths and weaknesses, and encourage students to develop learning strategies tailored to their individual needs. As we create opportunities for our students to perform concrete tasks with what they learn, they will be in a stronger position to understand their thinking processes. This will yield valuable information that students can use to adjust and regulate their own learning, and that we can use to improve our teaching methods, strategies, and approaches. In this way, the problem method may deepen learning for a diversity of students.

<sup>224.</sup> Weinstein, *supra* note 118, at 57. Weinstein argues that the process of problem solving and learning to think like a lawyer cannot be acquired through instruction or modeling but by personal experience. *Id.* 

<sup>225.</sup> See supra note 63.