California Western Law Review

Volume 34
Number 2 *Conceiving the Lawyer as Creative Problem Solver*

Article 8

1998

Teaching Creative Problem Solving and Applied Reasoning Skills: A Modular Approach

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TEACHING CREATIVE PROBLEM SOLVING AND APPLIED REASONING SKILLS: A MODULAR APPROACH

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I. INTRODUCTION

As society moves into the next millennium, legal education is going through a major transformation in how law is taught. Global economics and information technology have created new dynamics in business that have rendered traditional teaching methods, such as lectures and case discussions, outmoded or ineffective. These methods are often ineffective because they are passive and linear, and fail to teach students how to formulate practical solutions and alternatives to resolving disputes, or effecting a client's interests. Such skills become critical in situations where there is no legal precedent, where litigation becomes impractical or undesirable, or where enforcement of judgments is difficult. A new paradigm, using a modular approach, actively integrates skills training such as creative problem solving and applied reasoning into substantive and interdisciplinary course study.

This essay is a guide for professors interested in integrating problem solving skills into their curriculum. Section II will discuss the pedagogy for creative problem solving and illustrate the need for such skills. Section III will explain the fundamentals of the modular approach as used in courses such as Administrative Law, Corporations, Antitrust, and Telecommunications Law to teach these skills. Section IV will outline the learning processes for creative problem solving in transactional negotiations.

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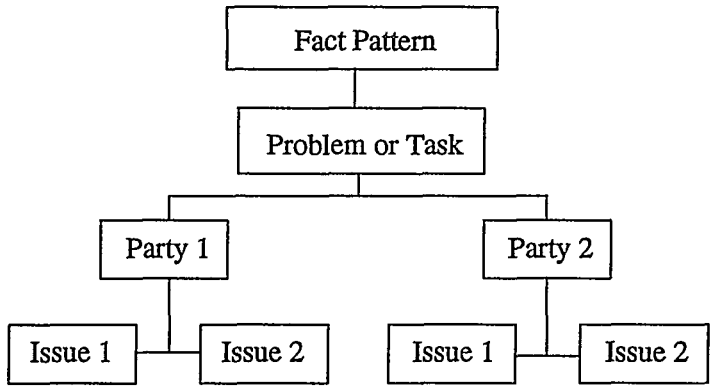
II. THE NEED FOR CREATIVE PROBLEM SOLVING

"Creative problem solving" is defined as a process[1] by which people are empowered to devise win-win solutions to problems based upon communication, consensus, understanding, and respect.[2] While creative problem solving skills vary depending upon the context, this discussion will focus on the process for resolving disputes in a non-litigation setting, such as in negotiating trade or commercial transactions.

The instructional approach to teaching creative problem solving skills is called the "transactional case method,"[3] or "modular approach to learning." A modular approach divides the course outline into discreet segments, known as modules (See Figure 1). Each module contains a detailed fact pattern, a series of issues that must be researched and prioritized by the students, and a task that must be performed. The task is for students to negotiate a win-win resolution to a problem, or persuade a panel on a given position. This approach to learning tends to be much more interactive and dynamic, requiring students to think, reason, and figure out solutions that may not be based solely upon the law.

Figure 1. The Module Design

COMPONENTS OF A MODULE



1. *See* ROBERT M. GAGNE', THE CONDITIONS OF LEARNING AND THEORY OF INSTRUCTION 178 (4th ed. 1985); DONALD A. SCHÖN, THE REFLECTIVE PRACTITIONER: HOW PROFESSIONALS THINK IN ACTION 39-40 (1983).

2. This definition is a synthesis of comments made during a focus group session at CWSL where lawyers and artists discussed creative problem solving and the law (Dec. 16, 1997).

3. Paul Brest, *The Responsibility of Law Schools: Educating Lawyers as Counselors and Problem Solvers*, 58 LAW & CONTEMP. PROBS. 5, 9 (1995).

This pedagogy is built on the premise that law is interdisciplinary and impacted by as many causes as there are solutions.[4] For example, a client does not explain a problem in terms of different causes of action. Instead, a client tells a story that includes several variables, causes, and effects.[5] The client seeks to resolve the dispute without litigation, if possible, because of the cost, time, enforceability, and unpredictability of the legal process. If both parties feel this way, the outcome of the process becomes win-win rather than win-lose. To achieve a win-win solution, both sides must first embrace their mutual interests, and use these interests as a linchpin to reconcile differences. This is creative problem solving.

The need to teach creative problem solving skills becomes readily apparent in three different areas: international transactions, regulating the Internet, and Alternate Dispute Resolution.

International Transactions: Transacting business overseas requires sensitivity to differences in language, culture, and business practices. This sensitivity is as critical to the success of a business deal as knowledge of the law. With the growing number of transactions occurring abroad, lawyers are now expected to handle a variety of legal problems involving complex jurisdictional and enforcement issues, treaties, and international protocols. This complicates business dealings in a way that is unprecedented.[6]

Internet Regulation: Recent statistics show that information technology alone accounts for over $40 billion in annual U.S. exports.[7] This means that information technology enables communication and the exchange of information without limitations or boundaries, thereby providing an additional dimension to internal business dealings. Lawyers are now required to have a breadth and diversity of knowledge and experience that forces them to function as a team with nonlawyers, in the same way as a manager or a general counsel for a corporation.[8] More businesses are seeking legal advice, not only on transacting business abroad, but also on setting up internal and administrative business structures for dispute resolution,[9] and in instructing employees on how to effectively work in other countries so as not to run afoul of the law.

In Singapore, for example, a businessman was charged with libel for making negative statements about the government when he used the Internet to e-mail a colleague about delays caused by government officials.[10] In an-

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4. *See id.*

5. *See id.*

6. *See* Parry Aftab, *Doing Business on the Internet: A Pandora's Box*, 147 N.J. L.J. 365, Jan. 25, 1997, at S1.

7. *See Clinton Administration Releases New Strategy for Global Communications Infrastructure*, NATION'S CITIES WEEKLY, July 7, 1997, at 9.

8. *See* Jill Schachner Chanen, *Constructing Team Spirit*, A.B.A. J., Aug. 1997, at 58.

9. *See id.*

10. *See* Joanna Connors, *Civility Comes at a Price*, PLAIN DEALER, Nov. 16, 1997, at A1.

other case, an employee was jailed while on holiday in Malaysia for violating the country's decency laws. The employee had used the Internet to access a web site that contained sexually explicit materials.[11] In Russia, a Qualcomm employee was detained by officials because he was using technical equipment within the country. The Russian government claimed that the equipment enabled him to engage in espionage.[12] In these instances, the employees were under the misguided impression that "open access" in these countries meant free from censorship. Lawyers will often be called upon to advise a company on how to handle these situations.[13]

Alternative Dispute Resolution: Alternate Dispute Resolution ("ADR") is another area where creative problem solving skills are important. ADR has grown in popularity over the years as the cost and uncertainty of litigation rises. There are generally five reasons why mediation, arbitration, or negotiation is preferred by parties. First, mediation is an alternative when the law is undeveloped so that the case is one of first impression and it is difficult to predict the outcome. This is particularly true in transborder issues involving nationals or sovereignties of different countries. In such instances, resolving the dispute often turns on the willingness of the parties to be bound by the resolution. Second, ADR may be preferred when the law is not clearly in the client's favor. Third, negotiation is viable when the relative rights and duties of the parties are equal, or so close that it is unclear how a court will likely balance the equities. In this instance, both parties have strong motivations to reach a compromise. Fourth, litigation is not attractive when, even if the law is in the client's favor, enforcement is problematic. Trying to enforce judgments off shore, or against a person who is judgment proof, are examples where ADR can be more effective. Finally, negotiation is attractive when the delay and the cost of litigation will be detrimental to the interests of the parties. Delays caused by litigation can often lead to insolvency, lost opportunities, or cancellations of deals.

Creative problem solving is used in all of these examples to fashion a resolution in which all parties can be satisfied by building a consensus. This means focusing first on the mutual interests of the parties, and then providing incentives for each to compromise. Consensus-building, applied reasoning, and problem solving are all necessary skills to achieve negotiated settlements. The challenge for the professor is how to integrate these skills into substantive course work.

III. FUNDAMENTALS OF A MODULAR PEDAGOGY

The modular approach has proven most effective in large classes of up

11. *See* Bernard Wysocki, Jr., *Malysia is Gambling on a Costly Plunge into a Cyber Future*, WALL. ST. J., June 10, 1997, at A10.

12. *See Russians Release U.S. Spy Suspect*, SEATTLE TIMES, Dec. 23, 1997, at A1.

13. *See* Chanen, *supra* note 8.

to eighty students, as well as in seminar classes with as few as ten to fifteen people. It can be used to demonstrate the interplay among multiple disciplines or principles of law. For example, the modular approach may be used to demonstrate the board of directors' duty to its shareholders during a hostile takeover, and how to use proxies in a Corporations Law course. Also, it can be effective to show the interplay of international copyright laws and the Uniform Commercial Code in enforcing creditor rights in a secured transaction.[14]

The modular approach begins with a hypothetical fact pattern covering no more than three to four subject areas. The facts are equally balanced in terms of the rights and responsibilities of the parties so that each party has some liability and leverage. Students are directed to attempt to reach a win-win solution, and are evaluated based upon their ability to achieve their client's interests, identified as the bottom line.

The fact pattern is followed by a problem to be solved or task that must be completed. The problem or task assumes that students will engage in role playing. Students should be assigned to a group or team that represents a party. It is important that students work in teams, dividing research assignments so that individuals not only become experts in an given area, but learn to delegate and rely on other team members in developing a strategy through consensus. Consensus is achieved by discussing, weighing, and measuring the relative rights, duties, and obligations of the parties for each issue. The problem or task should be general and designed to describe the nature of the conflict or what students are expected to accomplish. For example, a task may require students to draft and negotiate a contract, a settlement agreement, or resolve a dispute.

The problem often includes several issues that must be identified and resolved. The basic issues should be provided in advance to students. This gives them a road map of the issues which will enable them to divide up the assignments among their team members. While some professors may be inclined to allow the students to determine the issues on their own, a problem arises if they miss, misstate, or fail to properly weigh an issue. While such risks may be considered part of the learning process, they tend to reek havoc on student exchanges as the exercise proceeds. Inasmuch as the case materials are interdisciplinary, it is often useful to discuss the issues as a class; but the professor should ultimately define which issues should be addressed by each team.

The substantive material for each issue should be discussed in parts or lessons, where relevant case law, statutes, and/or law review articles are reviewed and then applied to questions raised in the fact pattern. This gives the students an opportunity to understand the law in the context of the facts,

14. This module is being conducted through distance learning, linking students using the Internet and video-conferencing at the University of Arizona, ITESM in Monterrey, Mexico, and CWSL.

begin to develop arguments, and assign appropriate weight to those arguments. It is not critical for the professor to be an expert in all of the subject areas. Hosting guest speakers and inviting colleagues to lecture on a given subject are effective ways to maximize substantive input—and create a dynamic learning environment.

Once the substantive material is discussed as a class, the teams should be given an opportunity to break into their groups in class to begin developing their strategies. Conducting the discussions separately but in class is useful because it enables the professor to circulate among the groups to see how the strategies are developing, and anticipate and respond to potential problems that may arise. The professor's role is to answer questions, and to provide feedback and direction when necessary.

Grading or evaluation of students can be done in a variety of ways but should include different components such as individual written assignments, group interaction, oral presentations, and the groups' success in resolving the problem or completing the task. Writing assignments should include a one to two page position paper that outlines their strategy, and a longer paper, usually five to ten pages, on the legal issues, to ensure that the students properly grasp the law. The papers also force the students to organize their thoughts which will help them in their oral presentations. Feedback and interaction on the assignments are critical throughout the exercise.

IV. PROCESS FOR TEACHING CREATIVE PROBLEM SOLVING SKILLS

It is important to remember that creative problem solving is a dynamic process where the professor is the coach or facilitator. The professor's role is to establish the context in which the skills are to be taught. This can be done by identifying the goal of the exercise.

In negotiation, the goal is to reach a compromise or a win-win solution. The student-lawyer's role is to advocate for a party. The strength of the student's position is defined in large part by the effectiveness of the strategy employed during the negotiation process. By contrast, in lobbying, the goal is to persuade a third party(s), who is the ultimate decision maker.

In lobbying, the goal is often perceived as win-lose because the positions often appear to be mutually exclusive. The outcome can become win-win if the student can provide, as part of his or her rebuttal, ways to reach a compromise. As a result, the effectiveness of the student's performance in lobbying simulations is defined by the persuasiveness of the arguments, the ability to rebut the counter arguments, and the proposals for compromise. In Administrative Law, for example, reaching a compromise often means having the administrative body impose conditions on its approval of a proposed action, or choosing to regulate some activity, but not others.

The student's role in a negotiation simulation is to assess the strengths of his or her legal arguments by researching the law, applying the facts, and reaching a conclusion on each of the issues affecting his or her client. Stu-

dents must then prioritize their arguments, based upon the likelihood of success, should the matter go to court; the political and economical costs; and the long-term consequences for the parties. Once this is done, the student must decide upon the client's opening position, negotiating strategy, and bottom line. This involves determining what the client wants, what the client can live with, and what concessions the client is willing to give up. A similar assessment of strengths and weaknesses must be made of the other party's positions. The student is now ready to proceed to the next phase of the problem solving process where all of the parties meet to begin negotiating.

While scholars may define the steps differently,[15] a negotiation usually involves three stages. The first stage is the opening position, where the student-lawyers state what their respective clients want. The opening position is what is optimal for the client. The second stage is the negotiating posture, where the student must listen to the other party's position, and then respond, using the law and the facts to persuade the other party on the efficacy of the proffered position. This is where the negotiating points are used. The discussions should lead to an exchange of proposals for compromise, where each party is willing to give up something in order to get something else. The final stage is where an agreement has been reached, and the agreement is reduced to writing. The parties are usually satisfied if, at a minimum, their bottom line has been achieved. The bottom line is what the client is willing to accept.

V. CONCLUSION

Teaching creative problem solving skills that are integrated into substantive curriculums is a necessity for law schools, if they are going to be competitive in legal education. The demands of the profession require that students be as proficient in legal skills as they are in the substantive law. Course models for professors are available to use in adapting courses to include more skills training. It is not a question of whether—only when. The reality is that students and law firms will soon evaluate law schools based upon the ability of professors to prepare students to respond to the current needs and expectations of society.

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15. *See* Stephen Nathanson, *The Role of Problem Solving in Legal Education*, 39 J. LEGAL EDUC. 167, 168 (1989) (identifying five essential features: 1) Problem definition; 2) Problem interpretation; 3) Option identification; 4) Decision making; and 5) Implementation); JOHN D. BRANSFORD & BARRY S. STEIN, THE IDEAL PROBLEM SOLVER 20 (1993) (stating the approach as: 1) Identify the problem and opportunities; 2) Define the goals; 3) Explore possible strategies; 4) Anticipate outcomes; and 5) Look back and learn); GAGNE', *supra* note 1, at 178 (identifying the process as: 1) Presentation of the problem; 2) Defining the problem; 3) Formulating a hypothesis that may lead to a solution; and 4) Verification of the hypothesis to see that a solution is found); CAROLINE MAUGHAN & JULIAN WEBB, LAWYERING SKILLS AND THE LEGAL PROCESS, 39-40 (1995) (setting forth a strategy that includes four steps: 1) Gathering the information; 2) Generating the working hypothesis; 3) Interpreting the information; and 4) Weighing the pros and cons and selecting the best).