Testing Multiple Intelligences: Comparing Evaluation by Simulation and Written Exam

Ian Weinstein
Fordham University School of Law, iweinstein@law.fordham.edu

Follow this and additional works at: http://ir.lawnet.fordham.edu/faculty_scholarship
Part of the Education Law Commons

Recommended Citation

This Article is brought to you for free and open access by FLASH: The Fordham Law Archive of Scholarship and History. It has been accepted for inclusion in Faculty Scholarship by an authorized administrator of FLASH: The Fordham Law Archive of Scholarship and History. For more information, please contact tmelnick@law.fordham.edu.
TESTING MULTIPLE INTELLIGENCES: COMPARING EVALUATION BY SIMULATION AND WRITTEN EXAM

IAN WEINSTEIN*

Written examinations play a key role in legal education. The LSAT is the most important factor in law school admissions. Once students enroll in law school, exams are used to evaluate and sort first year students. At most American law schools, a single, end of semester or end of year, timed, written, in class exam determines the grade in each first year class. Although exams continue to play a major role throughout law school, once students are sorted at the end of first year it is often difficult for them to significantly change their place in the law school hierarchy. This paper argues that written exams are not adequate assessment tools for law schools and presents data suggesting that using both graded simulations and exams would better assess and promote the development of law students into lawyers.

Legal academia's reliance on written exams raises questions at all stages of the process, from student selection through graduation. Although the LSAT is a valid statistical predictor, it has serious limita-

---

* Associate Professor of Law, Fordham University School of Law. I want to thank Prof. Barry Rosenfeld, Associate Professor of Psychology, Fordham University. Prof. Rosenfeld performed the statistical analysis and gave me very helpful advice, but responsibility for the project, and its shortcomings, is mine. I also want to thank my colleagues, Professors Elizabeth Cooper and James Cohen for their comments, and Assistant Dean of Admissions Kevin Downey for his many thoughtful observations about student assessment. Fordham University provided financial support for this project.


2 The LSAT reliably predicts first year grades. For the group as a whole, test takers who do better on the test will also tend to receive higher first year law school grades. The magnitude of their relative success on the LSAT will also tend to predict the magnitude of their relative success as measured by first year grades. Lisa C. Anthony, Vincent F. Harris, & Peter J. Pashley, Predictive Validity of the LSAT: A National Summary of the 1995-1996 Correlation Studies, Law School Admissions Council LSAT Technical Report 97-01, Law School Admissions Report Series (1999)(finding the LSAT has a mean correlation coeffi-
tions. The test can only predict a portion of the variation in grades.\textsuperscript{3} Like any statistical tool, its predictions are most powerful for the large group. The test offers progressively less information about smaller subgroups and is not equally valid for all subgroups. It tends to overpredict the success of white males and underpredict the performances of women and people of color.\textsuperscript{4} As with any predictive examination, its use must be informed by a good understanding of what it can and cannot do. The LSAT offers a prediction about the grades a student, or group of students, will receive in law school, particularly in the first year. One of its virtues is that it has been, and continues to be, carefully studied and critiqued. Those who are inclined to use it with care

\textsuperscript{3} There remains a great deal of unexplained and unpredicted variation. As the Law School Admissions Council notes, “Many factors other than the acquired academic skills measured by the LSAT contribute to academic performance. In addition there is a certain amount of measurement error inherent in the test.” \textit{Anthony et al., supra} note 3, at 4.

Although the test is valid, its predictive power, particularly at the level of individual test takers and some subgroups, is quite limited. Although it is the best tool we have, it only predicts 16\% of the variation in first year grades among students who actually enroll in law school. William C. Kidder, \textit{The Rise of the Testocracy: An Essay on the LSAT, Conventional Wisdom, ad the Dismantling of Diversity}, 19 Tex. J. Women & L. 167, 187, 206 (2000)(analyzing and critiquing data showing that the LSAT accounts for only 27\% of the variation in projected FYGPA (mean correlation coefficient of .52) of all test takers, including those denied admission, and only 16\% of the variation in FYGPA (mean correlation coefficient of .40) among all students actually enrolled in law school and trenchantly arguing that the current law school admissions and evaluation regime reflects deeply held cultural norms which disfavor students of color).

may do so by accounting for its weaknesses and combining it with other assessment methods.\(^5\)

The same cannot be said for law school exams. Presumably, success in law school should have some predictive relationship to success in the legal profession.\(^6\) In stark contrast to the LSAT however, there is very little data supporting, or analyzing the presumed predictive relationship between law school exam performance and lawyering. The studies that have been done are at best equivocal, and some show no correlation between success in law school, as measured by grades\(^7\) and success in the profession.\(^8\) This is a very difficult issue to study.\(^9\)

While successful law students often go on to be successful lawyers, law

\(^5\) The LSAT is a statistically valid test, in contrast to law school exams, which are not reliable or valid, Linda R. Crane, *Grading Law School Examinations: Making a Case for Objective Exams to Cure What Ails “Objectified” Exams*, 34 NEW ENGL. L. REV. 785 (2000) (arguing that traditional exams are not reliable or statistically valid and that objective examinations should be used in their place). The LSAT is also a better predictor than UGPA alone, or any other measure available for the entire group, but we must recognize its limitations. The test offers only some information about any particular individual, not a certain prediction of how that person will perform in law school, or more importantly, as a lawyer. Only carefully informed judgment in admissions can select students who will continue the tradition of American lawyers exercising national leadership and seeking justice. Blind testing alone cannot achieve that goal and the authors cited above suggest the ways in which overreliance on the test sacrifices many values in a chimerical pursuit of a very narrow virtue.

\(^6\) Although this is not a self-evident proposition, particularly among law school faculty, some of whom hold the profession in rather low esteem. Perhaps law school's primary function should be to prepare students to teach the law, or think critically, or achieve some other goal. If that is the case, the typical law school program is quite ill conceived and the special status law schools enjoy as gatekeepers to the profession should be reconsidered.

\(^7\) It might be argued that success in law school is best measured by indicators other than grades. Although there is much sense in that notion, it does not reflect the current reward structure, which grants high status (journal positions, membership in moot court and similar organizations and academic awards) and economic benefits (lucrative summer jobs, high salary jobs upon graduation and high status positions such as clerkships which lead to high salary jobs) largely on the basis of grades, with first year grades having the major role in allocating the benefits.

\(^8\) Ogloff et al., supra note 1, at 203-20 (reviewing studies assessing law school performance and professional success and concluding that the data is difficult to interpret and does not give rise to valid generalizations); James R. P. Ogloff, David R. Lyon, Kevin S. Douglas & V. Gordon Rose, *From the Trenches and Towers: Law School Affirmative Action: An Empirical Study Michigan's Minority Graduates in Practice: The River Runs Through Law School*, 25 LAW & SOCIETY INQUIRY 395 (2000)(study showing that minority graduates of Michigan Law School had lower GPAs of about 0.9%, but satisfaction with law school and career success similar to white graduates and suggesting that grades do not predict success or satisfaction in the profession); Kidder, supra note 1, at 197-98 (citing the Michigan data and an unpublished study done at Boalt Hall and arguing no data supports a predictive relationship between law school grades and professional success).

\(^9\) Assessing success in the profession is problematic for many reasons, including the difficulties inherent in defining success so that it can be measured. For example, the Michigan study, supra note 8, used current income, self-reported satisfaction, and an index of service contribution. Other measures can also be used, but all are problematic.
students with strong first year grades also have significantly better opportunities than their less successful peers. Their relative professional success may reflect those opportunities, as much, or more than, their particular merit relative to their law school classmates, all of whom met the same narrow and well-defined admissions criteria. The profession is also full of lawyers who enjoy professional success but did not excel in law school. Do law school exams predict success at being a lawyer? Are there other assessment tools that would assist law students and law schools in guiding and shaping legal education?

One way to explore the relationship between law school exam performance and lawyering performance is to consider it in the context of the long running debate about the nature, and testing, of intelligence. Legal education reflects the traditional view that well designed tests can measure some superordinate, general kind of intelligence which correlates with success across a range of endeavors. Over the past twenty five years a contending school of thought has argued that success at life’s important endeavors requires a combination of independent faculties, or intelligences, which combine quite differently in each person. In this theory, predicting and assessing an individual’s strengths and weaknesses requires more than a single, or single kind, of assessment tool. The data presented in this paper suggest that multiple intelligences theory has useful applications in law student assessment.

Traditional intelligence theorists see intelligence as a single, inva-

10 The educational value of law school exams is a separate, and very important question. Although it is beyond the subject of this paper, it may be noted that everything educational theory tells us about testing leads to the conclusion that a single end of year exam, with no feedback beyond a letter grade, makes little contribution to the educational experience. The Gonzaga University Institute for Law School Teaching, Gerald Hess, Director, offers Seven Principles for Good Practice in Legal Education. Principle 4 is: Good Practice Gives Prompt Feedback. It reads:

Knowing what you know and don’t know focuses learning. Students need appropriate feedback on performance to benefit from courses. When getting started, students need help in assessing existing knowledge and competence. In classes, students need frequent opportunities to perform and receive suggestions for improvement. At various points during college, and at the end, students need chances to reflect on what they have learned, what they still need to know, and how to assess themselves. http://law.gonzaga.edu/ilst/7Pslntro.htm. See also Terri LeClercq, Principle 4: Good Practice Gives Prompt Feedback, 49 J. LEGAL EDUC. 418 (1999)(describing methods for providing good feedback in law schools); How PEOPLE LEARN: BRAIN, MIND, EXPERIENCE AND SCHOOL 139-41 (John D. Bradsford, Ann L. Brown & Rodney R. Cockings eds., 2000) (reporting results of a National Research Council study on learning, distinguishing formative assessment, which improves teaching and learning and summative assessment, which measures what has been learned, and noting that formative assessment is critical to the development of adaptive expertise, should be continuous and also give students the opportunity to revise their thinking while they are still engaged with the material or project). The traditional law school exams has almost none of the formative features suggested by the works cited and its value as summative assessment is widely assumed and virtually untested.
riable faculty that is stronger in some people than in others. Its development follows a predictable pattern. The strength of one's instrument can be determined by standardized testing at a relatively young age and remains constant through a lifetime. The traditionalists hold that people of high intelligence excel at a broad range of mental tasks. Testing to measure general intelligence began around the turn of the nineteenth century, when Alfred Binet and Theodore Simon developed the first modern tests in an effort to identify retarded children. There was great enthusiasm for standardized testing during the first half of the twentieth century, as modernism and the lure of a rational, rule obeYing and scientific world dominated American culture. The assumption of a single, superordinate intelligence remains the received wisdom. It undergirds the traditional view that dominates standardized testing and is exemplified by the best known standardized intelligence test, developed by David Wechsler.

Others, notably Howard Gardner, champion the idea of multiple intelligences - a set of independent, abilities, skills or aptitudes that can be developed, to differing degrees, in everyone. Multiple intelligence theory posits several different faculties which combine in different ways in different people and poses a significant challenge to the idea of testing a single, overall aptitude that predicts performance across a broad range. As I discuss below, the twin claims for independence and importance of each intelligence are at the core of the debate. Gardner lists seven intelligences: Mathematical-logical, linguistic, interpersonal, intrapersonal, musical, spatial and kinesthetic. He argues that a person may have great talent in one area and little talent in another, making talk of general intelligence simplistic and misleading.

Whatever one's views on the general question, legal educators are faced with a narrower question. We are educating lawyers. Although musical, spatial and kinesthetic intelligences are laudable and impor-

11 See, e.g., John Duncan, A Neural Basis for General Intelligence, SCIENCE, July 21, 2000, at 457 (describing tests showing a correlation between people with high scores on measures of general intelligence and a specific area of strong brain activity and relating those results to the single intelligence tradition).


13 See Joseph D. Matarazzo, Wechsler's Measurement and Appraisal of Adult Intelligence (1972) (updating Wechsler's work for the student and practicing psychologist). Although these sophisticated tools do return scores for separate sub parts, they are predicated on a single general faculty, with different attributes and components. The theory of multiple intelligences posits a set of separate, independent, coordinating faculties.

tant, they play a less central role in lawyering than in a range of other life activities. Lawyers, however, need some combination of the other four intelligences; linguistic, mathematical-logical, interpersonal and intrapersonal. In what combinations and to what degree do exams or other evaluation formats measure development of those faculties? This paper offers data which suggests that law schools could profitably use simulations, in addition to exams, to evaluate law students' aptitude for lawyering.

I came to think about these questions after I collaborated with others in designing, and then teaching a lawyering skills course for seven semesters. The course, Foundation Skills, combined evaluation by graded simulations and written exams. Although the course was designed to teach some lawyering skills, not to test hypotheses about intelligence, this paper reports on the performances of more than 540 students who have taken the course. Analysis of the students' performances on both graded simulations and written exams suggests that lawyering calls upon several independent faculties or abilities, not all of which are measured by written examination alone.

I. THE INTELLIGENCES AND LAWYERING

A. Law School and Theories of Intelligence

Langdell's fundamental reform of legal education focused the law school curriculum on the study of written opinions and the doctrine-centric conception of what it means to "think like a lawyer." In this

---

15 A simulation is an exercise in which students are placed in role and required to act as lawyers carrying out some particular lawyering task. Typically the students are given written background material describing the background of the client or situation, the matter, and describing the setting in which the task must be performed. Simulations give students the opportunity to integrate a number of separate skills and explore the role of the lawyer.

16 We decided to offer a traditional graded course, rather than a pass/fail lawyering course. Virtually all courses at our law school are graded, with the exception of Trial Advocacy and Externship classes. For an interesting empirical study of the related choice between graded and pass/fail formats for live client clinics, see Stacy L. Brustin & David F. Chavkin, Testing the Grades: Evaluating Grading Models in Clinical Legal Education, 3 CLIN. L. REV. 299 (1997) (finding that most students prefer graded clinical courses and recommending that students be given the choice of grades or pass/fail).

17 Foundation Skills is an example of what has become a standard skill course, typically called an Interviewing, Counseling and Negotiation course (ICN). The course aims to teach those three skills, as well as fact analysis, persuasive theory development and critical role reflection.

conception, law students learned to interpret and manipulate rules to decide disputed cases. They were trained to think like common law judges concerned with correct application of general principles to particular cases. Abstract reasoning (particularly as evinced in timed end of semester essay exams) came to be the most important measure of one's promise as a lawyer, almost to the exclusion of all other indicators. Although clinical education, interdisciplinary thought and other trends have broadened legal education, law school still prizes the ability to apply principle to facts in a timed, written exam.

There is much criticism of traditional legal education and the doctrine-centric view of thinking like a lawyer. The most complete and influential statement of an alternative vision of legal education is The MacCrate Commission Report,\(^\text{19}\) which catalogs lawyering skills and values, and gives a prominent place to Legal Analysis (Skill §2).\(^\text{20}\) The MacCrate Report is the most complete explication of the view that lawyers need to be able to do many things, in addition to analyzing and manipulating doctrine, to solve the multitude of problems they confront. Problem solving, in both the broad sense of the term\(^\text{21}\) and

---


\(^{20}\) MacCrate Report at 135. Although there is much written on appellate legal analysis, the commentary to Skill §2 notes that the Commission's analysis departs "from the traditional case-method approach" by emphasizing contexts in which the facts are still being developed and the lawyer does not yet have complete knowledge of the law. The course, and this paper, involve legal contexts in which facts are still being developed and I have argued elsewhere that in those contexts, the twin skills of legal analysis and fact development are significantly interdependent. Ian Weinstein, Lawyering in the State of Nature: Instinct and Automaticity in Legal Problem Solving, 23 VT. L. REV. 1 (1998).

\(^{21}\) David A. Binder, Paul Bergman, & Susan Price, Lawyers as Counselors: A Client-Centered Approach (1991), which put the idea of lawyers as problems solvers at the core of our notion of the lawyerly role. They write:

Clients come to lawyers seeking help in solving problems . . . . But no matter who the client, what the substantive legal issues or whether the situation involves litigation or planning, your principal role as lawyer will almost always be the same— to help the client achieve effective solutions to their problems.

Id. at 2-3. They use that formula to expand the definition of the lawyer's role to include helping clients address non-legal aspects of their problems. Their focus, however, is on the
its more technical use in cognitive science, has offered an important framework for a broader and more useful conceptualization of the multifaceted work lawyers do.

Although few defend the view that lawyers only need to analyze doctrine to be effective lawyers, some defend law school's narrow focus on abstract reasoning. According to this view, law school is the place to learn the central, or superordinate, abstract skill of applying general rules to particular cases - thinking like a lawyer. That skill, aptitude or intelligence is seen as the key to all other lawyering activities. It is both the essential component and the hardest to learn. Other skills can more easily be picked up in practice, or in summer jobs, but only law school can teach aspiring lawyers to analyze rules and apply them to particular cases. This view is not unique to legal education. Defenders of the special place of doctrinal reasoning follow in the long tradition of psychologists and educators who have sought to define and measure a single, general intelligence. Their efforts have given us I.Q. tests and our contemporary enthusiasm for testing and sorting in American education.

The theory of multiple intelligences, championed by Howard Gardner, offers another view of intelligence, aptitudes or potentials. In this view, intelligence is composed of a number of independent faculties, each of which entails a set of skills that enable the individual to resolve genuine problems or difficulties encountered in the world. Identifying an intelligence requires more than finding some particular mental processing ability. The faculty must be broadly recognized across cultures as valuable and useful in the world. To qualify as an intelligence, the faculty must also meet eight criteria that support professional skills rather than the cognitive processes lawyers use.


23 See supra notes 11-13.

24 See generally Peter Sacks Standardized Minds: The High Price of America's Testing Culture and What We Can Do to Change It (2000)(describing and critiquing America's "testing culture").

25 Gardner, supra note 14, at 60.
viewing it as independent from other faculties, subject to some objective verification and plausible from a developmental and evolutionary standpoint.  

In *Frames of Mind*, Gardner argues for seven intelligences: linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, interpersonal and intrapersonal.  

The book, and much of Gardner's subsequent work, makes the argument for these seven faculties. Although Gardner remains committed to this taxonomy, he is more strongly committed to the idea that there is a set of independent problem solving skills or aptitudes than he is to the claim that they are best understood as exactly this set with the contours he describes.

**B. Logical Mathematical Intelligence**

Four of Gardner's seven intelligences are particularly relevant to the practice of law: logical-mathematical, linguistic, interpersonal and intrapersonal. Logical mathematical intelligence is, as the name suggests, associated with skill in logic and mathematics. At the core of this aptitude is the ability to think or reason abstractly. Typically, people who excel in this area are able to perform long chains, or series, of abstract mental operations. Lawyers use logical mathematical intelligence when they construct legal or factual arguments and analyze or strategize about legal situations. Courts and other legal institutions use logic to legitimize and guide their exercise of authority, although the relationship between logic and the force of law is a fundamental jurisprudential question.

Law school pays particular attention to logical-mathematical reasoning. Students are required to construct abstract, logical arguments in the classroom and in their examinations. The stress law school places on logical-mathematical reasoning is understandable for at least two reasons. First, this is the intelligence traditionally associated

---

26 *Id.* at 61-65.

27 *Id.* at 73-276 (describing and arguing for seven intelligences). In a more recent book, Prof. Gardner considers additional candidates and adds naturalist and spiritual intelligences. HOWARD GARDNER, INTELLIGENCE REFRAMED 46-60 (1999). I use his earlier formulation in this paper because it seemed most directly applicable to lawyering.

28 Three of the seven intelligences, musical, bodily-kinesthetic and spatial intelligences can be useful to lawyers, and may be key in some very specialized practice settings, but they seem generally less directly relevant to lawyering, at least in the sense that one can excel as a lawyer and have little ability in these areas.

with the single intelligence view. It remains the skill or aptitude most widely measured in traditional intelligence testing and upon which most American educators continue to focus. Second, whether or not it is the general intelligence of traditional theorists, logical mathematical reasoning plays an important role in the law.\(^{30}\) Even if it has to share its place with three other abilities, logical thinking is a key aptitude every lawyer needs. The real contention is over the three remaining candidates for independent intelligences of importance to lawyers: linguistic, interpersonal and intrapersonal intelligence. Most would agree that these are important skills or aptitudes for many lawyers. Not everyone agrees about their status. To what degree, if any, are these three aptitudes significant for lawyers and independent of logical mathematical intelligence and each other?

C. The Less Controversial—Oral and Written Linguistic Intelligence

At the core of linguistic intelligence is sensitivity to the meaning and ordering of words. A person with superior linguistic aptitude is able to choose and sequence words to persuade and educate others, to remember and use information and to explain and explore linguistic systems.\(^{31}\) A person may have strength in either oral or written expression and Gardner suggests that people who truly excel in one area often do not show equal aptitude in the other, suggesting a measure of independence between the two clearly related areas of oral and written linguistic intelligence.\(^{32}\) Lawyers clearly need linguistic intelligence. Much of lawyering requires skill at expressing ideas in writing and orally. Anecdotal experience also suggests a measure of independence between linguistic intelligence and logical mathematical intelligence and between oral and written abilities. Law reviews, are rife with sophisticated analysis expressed in clumsy, awkward language and lovely, flowing prose that offers ideas that are, at base, illogical. We have all heard talks in which bad ideas were well presented and good ideas hidden in awkward phrasing and bad speaking. There are many lawyers who speak well but do not write well. Conversely, there are those who only write well but would not venture out to a meeting or courtroom. Although some will resist elevating linguistic skill to the vaunted status of an intelligence, it is an important and difficult talent to master.

\(^{30}\) Although there is debate over whether legal reasoning is fundamentally deductive, analogical, metaphorical, or something else, that dispute presumes the centrality of abstract reasoning, whatever form it takes.

\(^{31}\) Gardner, supra note 14, at 77-78.

\(^{32}\) Id. at 95.
D. The More Controversial—Personal Intelligences

Intrapersonal and interpersonal intelligences are the two remaining candidates for inclusion in the group of independent aptitudes central to lawyering. This pair, which Gardner couples with the label “personal intelligences”, may find even less sympathy with traditionalists. Intrapersonal intelligence, the development of self-knowledge, is the ability or aptitude to access one’s own feelings and draw upon them as a means of understanding and guiding one’s behavior, and by example to gain insight into the behavior of others. This skill is central to lawyering in at least two respects. First, Gardner identifies self knowledge at the core of each person’s ability to control his or her own behavior. Lawyers and law students must have the motivation, self discipline and insight required to carry out complex, long term projects. Common experience gives us many examples of people who have great powers of abstract reasoning but who are unable to function as law students or lawyers because they lack motivation or engage in a range of other self defeating behaviors. Conversely, there are many in the law who succeed more by regular and steady effort than by brilliance.

Self knowledge also powerfully informs the exercise of judgment that is central to so much lawyering. As we come to better understand ourselves, we improve our ability to critically analyze our predictions and assumptions about the future. For example, the litigator who is motivated to fight hard in court because he or she is angry in his or her own life will benefit from understanding that motivation. Knowing him or herself will enable that lawyer to make decisions less influenced by their own unconscious needs and more centered on the client’s situation. Self knowledge can also be a powerful tool in making predictions and interpreting the motivations and actions of others. As we better understand ourselves, we can use that knowledge to interpret others.

Interpersonal intelligence, the “ability to notice and make distinctions among other individuals, and, in particular, among their moods, temperaments, motivations and intentions,” is the second of the personal intelligences. A lawyer who has insight into others’ emotional states is better able to collaborate with colleagues, work with or against adversaries and persuade others. This is arguably the most

---

33 Id. at 239.
34 Id.
35 Lawyers have long recognized the value of this, and other, intelligences. Wellman, the original skills teacher, noted, “[Cross examination] requires the greatest ingenuity; a habit of logical thought; clearness of perception in general; infinite patience and self-control; power to read men’s minds intuitively, to judge of their characters by their faces, to
important skill for a lawyer whose practice setting involves client contact, group work or oral advocacy.

This discussion of the personal intelligences has asserted that traditionalists may be particularly leery about elevating these personal aptitudes to intelligences. Wariness about the personal intelligences in the law comes from several different sources and poses some legitimate concerns. First, the measurement and evaluation of the personal intelligences may suggest to some a return to an earlier era’s focus on character and shared moral outlook as the key qualifications for lawyers. These notions had a significant exclusionary effect through the middle of the 20th Century, operating to exclude people of color, women, some immigrant groups and others from the bar.36 This critique, however, confuses gaining a clearer understanding of our cognitive processes with the normative question of whether or not we should value diversity. It may be that an earlier era was correct to focus on other aptitudes, in addition to abstract reasoning, but defined or assessed the personal intelligences too narrowly or for goals we should not endorse.

In that earlier era, many were excluded by the assumption that only lawyers from the same social class could understand the motivations and intentions of similarly situated clients and each other. As lawyers and clients have become more diverse, we can recognize that personal intelligence is a skill, not a birthright. Caution about emphasis on understanding others is warranted, for it can lead some to reject diversity on the argument that people of different backgrounds have a difficult time understanding each other and working together. These problems are much better addressed by working to bring people of different backgrounds together and learning about difference and how to deal with it, rather than insisting that the bar be homogeneous.

This criticism of an earlier era’s take on personal intelligence should remind us that objective testing has also been an important tool for diversifying the bar, legal education and American education in general. To the extent objective testing, as we currently use it, fails to identify some important lawyering skills, law schools should face that challenge by developing other kinds of objective tests and adding other kinds of evaluation to the mix. While blind graded, objective

---

36 Russell Pearce, Lawyers as America’s Governing Class: The Formation and Dissolution of the Original Understanding, University of Chicago Roundtable (Forthcoming 2001)(manuscript at 25-26, on file with author)(arguing that the influx of immigrants in the early 20th Century fueled the development of the exclusionary ideal of a governing class of lawyer professionals and citing Jerold S. Auerbach, Unequal Justice: Lawyers and Social Change in Modern America (1976)).
examinations have flaws, they are an important tool in achieving some fairness in evaluating students and aspiring professionals. The challenge we face today is how to better understand and use the array of evaluative methods available to us.

Another element in the skepticism about the personal intelligences is their gendered quality in our culture. Popular culture still assigns being aware of and perceptive about emotions to the feminine sphere while mathematical-logical reasoning continues to be perceived as male.37 The focus on these concerns in law school is perceived by many students as “soft” or “touchy-feely,” both of which they typically use as pejoratives. Although these stereotypes are no longer as powerful as they were, they still exert influence over law students and law teachers, who continue to understand the personal intelligences as less important, powerful and legitimate that mathematical-logical thinking.

Whether we call them intelligences or not, a good lawyer needs to be able to understand doctrine, express that understanding to others, and have sufficient insight into him or herself and others to make complex judgements.38 The dual claims that these intelligences are independent of one another and that each addresses its own important area of problem solving pose important challenges to legal education.

II. THE COURSE

A. Teaching and Learning

Foundation Skills is a four credit, one semester course designed to teach basic legal interviewing, counseling and negotiation to classes of 72 to 96 law students. When I taught the course, the central text was Binder, Bergman & Price, Lawyers as Counselors.39 The

37 For a perceptive and careful analysis of the role gender stereotypes play in law school teaching and an introduction to the vast and important literature on this complex issue, see Sandra Farber & Monica Rickenberg, Under-Confident Women and Over-Confident Men: Gender and Sense of Competence in a Simulated Negotiation, 11 Yale J. L. & Feminism 271 (1999)(discussing the impact of law students’ gender stereotypes on the development of lawyering skills in a course designed to address the challenges multiple intelligences theory poses to traditional legal education).

38 There are many different ways to categorize and describe the variety of abilities or skills that lawyers use in the countless contexts in which they work. I have chosen Gardner’s now classic formulation. Professor Peggy Cooper Davis has developed a very thoughtful approach to these issues, significantly informed by Gardner’s and a body of original and important research in the context of legal education at New York University School of Law. See http://www.nyu.edu/law/workways/.

39 Binder et al., supra note 21. The book was supplemented by law review excerpts, Model Code and Model Rule Selections and other material. The negotiation texts were Frank G. Gifford, Legal Negotiation (1989) and excerpts from Roger Fisher & William Ury, Getting to Yes (1981). I last taught the class in the spring of 2000. My colleague, James Cohen, is now teaching the course using much the same structure, but this
course uses experiential teaching and learning. It is built around four sets of simulations and a number of exercises. The course was developed to teach skills to a larger group of students than was possible in our live client clinics, which have low student faculty ratios. We conceived the course as a prerequisite for our live client clinics which would cover some basics and permit students and teachers in those courses to focus on more advanced lawyering issues.

Students and teachers met in a variety of formats during the semester, in what may be an overly complex effort to balance efficiency with individual and small group attention and to give students a wide variety of different experiences. About half the classes were in the traditional law school setting of the large classroom. I taught the large classes in variety of formats, including group exercises, lecture, live demonstration and critique, video demonstration and critique, guest panels and class discussion. The other half of the classes met in smaller groups. Students were assigned to twelve-person breakout classes, each led by a different instructor.

The small groups also used and met in a variety of formats, including exercises and class discussions, although the simulations were the heart of the small group experience. There were four sets of simulations in the Foundations semester, two minor and two major. The students worked in pairs on the two minor simulations. The problems presented one transactional and one litigation setting and the minor simulations were done around the third and sixth weeks of the semester. The first minor simulation was an initial client interview. The description does not capture his many improvements and only describes the course as I taught it.

40 In the 1999-2000 school year, Fordham law school had eight clinics, some enrolling students for one semester and some for two semester, with a total enrollment of about 110. In that year the Foundation Skills course enrolled 204 students, about one third of whom were simultaneously enrolled in a live client clinic. Both the clinic and the number of slots in Foundations has increased.

41 Although the reality is that about two thirds of the clinic students took Foundation Skills as a co-requisite during this period.

42 The small group instructors included another full time member of the clinical faculty, a number of Fordham Law School alumni and several people who had taught lawyering skills at other New York City law schools. Although one alum had about ten years of practice experience and had taught other courses, most of the group were more recent law school graduates and my former students. They were about evenly divided between men and women and came from a variety of practice settings including full service law firms, smaller law firms, government and teaching.

43 The minor simulations each presented two different problems, one set in a litigation context and the other in a transactional setting. If a student did the transactional problem in minor simulation 1, he or she did the litigation problem in minor simulation 2 and vice versa.

44 The litigation interview setting presented a prospective client who was an uninvolved witness to a fight in a bar and was hit by a thrown ashtray. The transactional problem
students were allotted 20 to 25 minutes to interview an actor playing a potential new client seeking legal advice and representation. Three of the six pairs did their simulations in front of four of their student colleagues and their small group instructor, and then participated in an immediate group critique. The other three pairs did their simulation in front of a video camera and later critiqued the tape in class, along with four other students and the small group instructor. When the students moved to minor simulation two, which emphasized counseling and client decision making, they reversed positions so that those who videotaped the first time performed live the second time and those who did the transactional problem the first time, had the litigation problem the second time and vice versa in each dimension. As in minor simulation one, the students were given about 20 minutes to counsel an actor playing the client.

The two major simulations followed. The students engaged in major simulation I around week eight of the semester. The simulation was set as a second meeting with a client who co-owns four small multi-family dwellings with his or her sister-in-law. They have run the business without any formal agreement for about ten years and now each partner is reviewing her or his future plans and business goals. The immediate questions presented was whether and what kind of formal business structure the partners should adopt. The materials also permitted the students to explore issues beyond the question of business form, including allocating authority among family members, giving business advice, resolving conflicts about workload and responsibility and evaluating and planning to address a variety of legal risks.

The students worked alone in major simulation I and talked with their actor/clients for up to 45 minutes. Each session was videotaped and reviewed by the student's small group instructor. Each student met individually with his or her small group instructor for a one on involved the initial interview of a client who wants a separation agreement drafted in a very amicable divorce proceeding which, as it turned out, presented some difficult problems in the division of assets.

45 The time limit was required because the students perform and are critiqued within a one hour period. This is just one of the many ways resources had to be rationed in the course to strike a balance between individual attention and limits on student and faculty time.

46 We call this the "fishbowl" critique.

47 Here again, half the students did a litigation problem involving a client who must accept or decline a settlement offer in a §1983 case and the other half worked with the transactional matrimonial problem from the first minor simulation.

48 A rather complicated scheduling grid would have made all this happen, but each semester scheduling and other logistical problems intruded on this plan. Most, but not every student did each kind of problem, one live and one on videotape.
one critique that typically lasted about an hour. The classes did not meet in any other format during the week to ten days over which major simulation I was videotaped and critiqued.

Major simulation II typically fell in the twelfth week of the semester and presented a negotiation problem. The students were paired. Our goal was to have each team negotiate against a practicing lawyer, typically recent graduates of the law school's clinical program, but given the realities of life in practice for young lawyers, each semester some students negotiated against other students. The students could negotiate for up to 45 minutes and the session was videotaped. The small group instructors critiqued the videotapes with the pairs of students in sessions that typically lasted an hour to an hour and a half.

Each of the simulations was preceded by classwork designed to prepare the students to perform in the simulation and analyze and learn from the experience. The initial interviewing simulation was preceded by several large classes on the goals and techniques of legal interviewing, including planning, structuring and question asking, legal problem solving and theory development and the professional and legal obligations of lawyers. This unit also included two small classes built around question asking exercises.

---

49 The students continued to represent the client they counseled in major simulation I. They were given additional materials informing them that their client had decided to either buy or sell a portion of the business from his or her partner and wanted to make some changes in the way the business was run and work was allocated between the two. The students negotiated the sale or purchase of an interest in the business and other terms, and were free to raise and resolve other issues.

50 The formats of these classes varied and included i) a demonstration videotape of a doctor and patient interaction, followed by class discussion to raise issues of professional role, ii) a brief written hypothetical used as the basis for a large group planning exercise, iii) a demonstration video of an initial client interview followed by discussion of interview structure, iv) a large group brainstorming session to identify legal theories based on a brief written hypothetical, v) a lecture on narrative theory and cognitive framing, vi) a class discussion on excerpts from the Code of Professional Responsibility, vii) the initial interview scenes from the film Anatomy of a Murder to raise the classic issue of whether lawyers should first explain the law or get the facts, viii) a lecture on Ronald Gilson's, Value Creation by Business Lawyers: Legal Skills and Asset Pricing, 94 YALE L. J. 239 (1984), to offer a model for and identify the goals of transactional lawyering.

51 One hour was given over to a small class devoted to an exercise in asking open and closed questions. This was the first small class and was also designed to introduce the participatory, experiential model. The students were paired. The exercise began with one asking the other only open questions on an assigned topic (describe a room). Next the other asked only closed questions on a different topic (what do you do yesterday morning). The teachers circulated and explained and enforced the form limitations. After the questioning exercises, the students discussed their experiences, typically concluding that the forms serve different purposes and must be properly sequenced according to some set of goals and a plan to achieve a given purpose.

Another two hour small class was used for an exercise in which the students were in the role of prosecutors and planned for and interviewed an actor playing a witness to a convenience store robbery. During the planning they identified their goals, potential legal
The counseling simulations were preceded by large classes that focused on the role of lawyers in client decision making. The broad orientation of the course was sympathetic to client centered lawyering, but other models were presented and I was always explicitly pluralistic, telling the students that my central goal was to empower them to make role choices within the broad confines of their legal obligations. The major counseling simulation was also preceded by a small class, devoted to planning for the simulation. The first class after the major simulation was also a small group class, given over to debriefing the exercise.

Around week ten or eleven, we moved to legal negotiation. This section typically involved three or four large classes to introduce basic negotiation theory. As in the earlier unit, those classes mixed exer-


52 These classes typically involved some combination of i) debriefing of minor simulation 1 in the large class to make the point that even simple seeming matters, such as the initial interview in a seemingly simple matter, can give rise to very different stories and approaches, ii) a portion of an audiotape of an actual genetics counseling session to raise issues about neutrality in style and substance in counseling. In some semesters the class wrote brief reaction papers after hearing the tape. I then tabulated and summarized their reactions and discussed the results in the next class. There was always enough diversity and similarity in views and reactions to make for interesting and challenging discussion, iii) a video of model counseling to motivate discussion of the structure of a counseling session, iv) a demonstration video of an extremely aggressive, paternalistic counseling session to motivate discussion of authority in counseling sometimes, sometimes followed by the same kind of reaction paper described above, v) class discussion of the characteristics and pros and cons of client centered lawyering, paternalistic lawyering and purely instrumentalist lawyering, vi) class discussion based on excerpts from the Code of Professional Responsibility to identify the dominant view on allocation of authority between lawyer and client, and vii) an exercise in which students received a one page hypothetical and asked to decide how they, as clients, would choose to resolve a case. The range of choices and reasons illustrated the diversity of goals and views, even among a relatively homogenous group.

53 Initially, we used that debriefing class to play excerpts of various students' tapes. The idea was to show them the variety of client types and student approaches. Although many of us continued to play some student tape excerpts, many of us devoted a substantial portion of this class to showing and discussing a demonstration tape of the simulation. I initially made the tape to show the students an approach very few of them took. I was much less focused on the details of the law and much more oriented toward discovering the client's goals and thinking about a range of legal and non-legal solutions. At first, a fair number of students were highly critical of my approach, charging me with failing to be a lawyer, as they conceived the role. Over time we were successful in helping the students plan and execute more creative, less rigidly law defined sessions and their criticism of the demonstration tape became considerably less extreme.

54 These classes included i) playing a modified, multi round prisoners dilemma game, followed by a lecture on elementary game theory to introduce the cooperation/competition tension in negotiation, ii) discussion of the style strategy distinction in negotiation, iii) discussion of choosing among and combining the three strategies (problem solving, adversarial and cooperative) and two styles (competitive and cooperative) of negotiation,
cises, videotapes and lecture and discussion. There were also two or three small classes before the negotiation major simulation. There were only two or three classes left in the semester after the negotiation simulation. One or two of those classes was been given over to a variety of topics, none of which have met the challenges posed by the end of the semester. The last class was devoted to a description of the exam and my best effort at inspirational remarks on lawyering.

B. Evaluation

Students were evaluated at different points in the semester and in a variety of ways. They received feedback from each other and the instructors during the exercises in both the large and small classes. Their simulation performances were critiqued by their small group instructors and their simulation partners and observing classmates. The students critiqued themselves, and some of their classmates, in oral critiques immediately following the minor simulations. They critiqued their performances in the major simulations during reviews of the videotapes with their small group instructors and also wrote one to three page memos analyzing their work on the major simulations.

Students also received a final letter grade at the end of the semester. That grade was determined by their performance on five graded parts of the course. The five components were the grades on each of the two major simulations, a grade from the small group professor

iv) discussion of the structure typical of each strategy, common tactical approaches typical of each strategy, v) a demonstration video to illustrate the structure of negotiation, and vi) discussion of some professional responsibility issues in legal negotiation including issues around control of strategy and outcome and bluffing and deception.

The small classes included a negotiation exercise involving a low information, high overlap situation (the students do not know that each party would gladly agree to what the other side would view as a very favorable settlement), which illustrates the power of the first offer to the unwary - students almost all accept very high or low initial offers, not realizing that just because the offer is within their range, they might still information bargain to determine if they can do better. Another small class sometimes reprised the low information, high overlap type of problem, with a dollop of room for problem solving. Many of the students did not rush to settle the second time, although they did not all take advantage of the opportunity to problem solve. This second negotiation showed many of them that they had learned something. In later versions of the class we added a planning session which addressed specific issues in the major simulation.

The students received a numerical grade between 1 and 20 for each subscore. At the end of the semester, I used a spreadsheet to calculate each student's standard deviation from the mean for each subscore and then averaged across the five scores to calculate a "Z" score. The basic idea is to calculate how far from average each student's score was for each subscore. Those results are averaged, rather than simply using the raw score for each subscore. This tends to even out variations caused by differing distributions of scores in each subscore. The students were ranked by "Z" score and grades assigned consistent with the law school's grade distribution policy.

Students worked by themselves on Major I and with a partner on Major II. The grades for Major II, the negotiation exercise, fell in a narrower, higher range than the
assessing their overall participation in the small class and the grades on each of the two sections of the final examination. The grade for overall participation in the small class was the most subjective element, reflecting an assessment of the work in the minor simulations and the student's participation in the exercises and critiques of other students' minor simulations. The small group professor was responsible for three of the components, or 60% of the grade and the large class professor is responsible for the two exam components, or 40% of the grade.

Grading simulations presents challenges. Consistency, objectivity, fairness and validity are all difficult issues. These grades were assigned to students we knew, who were performing complex, multidimensional tasks. There were almost always a number of appropriate and useful approaches and a variety of ways for the students to display different strengths and weaknesses. The grading guidelines for the simulations were quite general. We told the students that their simulation work would be evaluated in three areas: critique, preparation and execution, and in that order of priority. I did not assign spe-

---

58 I had final responsibility for all the grades. After consultation, I set out the grading criteria and insisted that the grades be distributed in a rough curve, as described below. If I used this format again, I would address the very subjective nature of the general participation grade with guidelines and a more strictly enforced curve. I would also hope that the results of this study would encourage us to be more systematic, and less subjective, in our assessments of students.

59 Over the six semesters discussed in this article, I graded all the exams, with the two exceptions. I split the grading with a colleague during the second semester I taught the class and another colleague taught a 24 student evening section in Spring 2000 and graded those exams.

60 There appears to be very little written on grading simulations. The most complete clinical bibliography lists no articles on grading simulations in either the Assessment & Evaluation/Grading or Simulation sections, although some pieces my research has not covered may address the subject. J.P. Ogilvy & Karen Czapanskiy, Clinical Education: An Annotated Bibliography (second edition), CLIN. L. REV. Spec. Issue I, at 1, 22, 24 (2001). One piece that appears to address the issue is found in Arturo Lopez Torres & Mary Kay Lundwall, Bibliography: Moving Beyond Langdell II: An Annotated Bibliography of Current Methods for Law Teaching, 35 GONZ. L. REV. 1, 34 (2000)(citing Andrew L. Strauss, Creating and Conducting In-Class Simulations in Public International Law: A Producer's Guide, 4 ILSA J. INT'L & COMP. L. 669-81 (1998)(discussing creating and grading simulations)). A good example of the literature on simulations, which does not generally address or support grading is, Richard K. Neumann, A Preliminary Inquiry into the Art of Critique, 40 HASTINGS L.J. 725 (1989)(discussing methods of critiquing simulation).
specific percentages to each area, divide the simulation into subtasks or assign any particular weight to the written planning and critique memos the students produced. I offered narrative guidance to the students and instructors, explaining the goals for each of the three criteria.

The quality of the student's self-critique was the most important factor. The theory is that developing the ability to analyze their own performances and identify ways to improve their lawyering was the most important goal of the class. We also viewed critique as the aspect of the exercise students can most control and least subject to the unpredictability of lawyering. If a student missed an issue in planning and ended up with an actor playing a client with whom a student had particular problems, he or she should still be able to analyze why those things happened and how they might be addressed in the future. We also told students that we expected the critiques to make use of the theory and vocabulary from the readings and looked for evidence of familiarity with those concepts during the critique sessions. We urged the students to be specific in their critiques and asked them to come to the video review sessions having watched the tape and made notes to prepare to guide the discussion to particular portions of the simulation and be ready to discuss the language they used and other details of the session.

In our faculty meetings we discussed the issues we anticipated would arise in the critiques and developed lists of issues we expected students would raise, or toward which we planned to guide the conversation. We also identified our expectations of the students' preparation for the critique, including viewing the videotape and developing an agenda for the session. The faculty usually shared our expectations and plans in a meeting before the critiques and then debriefed by sharing themes and experiences from the sessions. My experience, informed by these debriefing sessions, was that students who were able to discuss specific aspects of the simulation and relate them to some overall theme about how they would approach a similar task in the future scored well on the critiques. I sometimes feared that, like a job interview, a good critique was one in which the instructor was made to feel interesting and engaging. Although I tried to counter this tendency by focusing on how conversant the student was with the simulation and the course material, and how he or she wove those strands together, the subjective nature of the evaluation remained a concern.

The second factor in evaluating the simulations was the quality of the preparation. We ranked this second because we wanted to send a message about the importance of preparation and because we thought it more within the students' control than the execution of the simula-
tion. In major simulation I the students were given a planning form and required to submit the form immediately before the simulation. In major II we did not give out a form, but directed students to work with their partners to create their own planning document. Some students also prepared charts, outlines and other material for their own use during the simulation. The videotapes revealed their use of other material and we typically collected and discussed that material in the critique. Planning is the grading factor for which we most consistently had clear, written evidence.61

The third factor was the execution of the simulation. I ranked execution third in an effort to decrease the tendency some students have to address their anxieties about simulation by "blaming the simulation" during the critique - that is the tendency to focus the critique on explaining why the actor was bad and the problem was bad and the lighting was bad, all of which explains why the student did not do a "good job." I tried to convey the message that because the simulation is dynamic, aspects of it were simply beyond their control. The actor may misstep, or the student's choices turn out to be poor ones for reasons he or she could not have foreseen. The simulations are dynamic and unpredictable, like real lawyering. Sending a clear message about that unpredictability was intended to take the focus off whether they did the simulation correctly or incorrectly, or well or badly, and encourage them to be thoughtful and analytic about what happened. We understand that frame of mind to be at the heart of preparing students to be responsible professionals in a complex profession.

While execution is ranked third, it was one of the three major criteria for evaluating student performance. In evaluating execution we tried to focus on how the session was structured, how the students executed particular questioning and listening skills, their choice of legal constructs, the degree of factual development and the persuasiveness of their reasoning. The students' approaches to all these elements should have been informed by the class material.

The two graded simulations, as well as the general participation factor, were evaluated on a 20 point scale. I learned that the small group professors were reluctant to give grades they, and the students, viewed in absolute terms as low, and so the grading was in increments of .5 from 17 to 20. I insisted that the grades generally fall on a bell

61 My impression, unsubstantiated by more than anecdote and eyeballing grades is that preparation is also the factor least likely to distinguish students from each other. Most students do about the same amount of preparation, with relatively few doing notably more or less, but again impressionistically, most of those who do notably more preparation perform better in critique and execute better than average.
curve, around a median of 18.5, but did not enforce a strict curve.\textsuperscript{62}

The remaining 40\% of the grade was determined by the final examination. For the first two semesters I gave an in class exam. For the last five semesters I gave a take home exam. All the exams were divided into two 20 point sections, and each section has two questions. The first section covered interviewing and counseling and the second was on legal negotiation.

The in class exam included one section in which a videotaped lawyering demonstration was presented, along with a transcript. The students were then asked questions based on the videotape. The other section presented a two to three page hypothetical, with questions based on the hypothetical. Concerns about the time pressures of the in class exam, and my own desire to read typewritten answers, led me to move to a take home exam. The take home exam used the same two-section format, with a written hypothetical for each section.

Typical interviewing and counseling questions presented students with two different clients with whom the student was scheduled to meet in a day or two. Students were asked to write an interview plan for each client or discuss issues of allocation of authority related to decisions each client has to make.\textsuperscript{63} The typical negotiation questions asked students to plan one or two negotiations and identify style and strategy choices, likely offers and counteroffers and predict their opponents' choices.\textsuperscript{64} All of the exams included one question that required some analysis of the Code and Rules of Professional Responsibility. The negotiation section sometimes included a question asking students to decide whether a given representation in a negotiation was permissible puffing or impermissible lying. The

\textsuperscript{62} In practice this meant I would ask the small group leaders whose grades were much higher or lower than the curve would permit to justify and sometimes change a few grades. I was, however quite sympathetic when my more experienced colleagues explained that the particular group of 12 was especially strong or weak and the grades were not distributed on a bell curve. In later semesters I standardized each subscore as part of my statistical efforts to make the final grades more valid and account for this problem.

\textsuperscript{63} One exam presented a client with a legally solid, but morally questionable claim for an initial interview and a client in the midst of litigation who had qualms about pursuing a legitimate, but hurtful line of deposition inquiry against a former employer. The students were asked to compare their role choices in the two situations and to discuss at least two particular lawyering techniques they would employ to realize their lawyering model. Another presented a client returning to the lawyer to redraft a will, after realizing large investment gains from very speculative investments. Students were asked to develop an interview plan and discuss whether and why they raise or ignore the appropriateness of such investments for their client.

\textsuperscript{64} One exam put the students in the role of negotiating on behalf of a client who was buying an office and subleasing some of the space to another company with which the client had a preexisting business relationship. Typical for these exams was the pairing of a negotiation context more suited to competitive negotiation with a context more suited to a problem solving negotiating strategy.
interviewing and counseling section sometimes asked them to analyze provisions allocating decision making authority between lawyer and client.

III. THE DATA

Data was available for 544 Fordham University School of Law students\(^6\) who took the course in six different semesters\(^6\). All individually identifying information was stripped and the individual scores were coded for gender, year in law school and race where available. Five scores were available for each student. The general participation grade, the grade for Major Simulation I, Major Simulation II, Section I of the exam and Section II of the exam. Statistical analysis was performed to determine the correlations among the various grades, clustering of the students' patterns of performance and any correlations among gender, race or year in school and the clusters.

IV. RESULTS

A. Correlation Analysis

Both correlation\(^6\) and cluster\(^6\) analysis support the hypothesis that the two types of evaluation, simulation and exam, measured dif-

\(^{65}\) The sample is selected from a very high achieving group, as is the case with any study at students enrolled at a very selective professional or graduate school. Fordham receives over 5000 applications for its entering class of about 450 day and evening students, and makes offers to about 20% of the applicants. Although it is a laudably diverse student body for an American Law School, the class is quite homogeneous in many respects, such as test scores and prior achievement in school.

\(^{66}\) All data were the results of regularly conducted tests and evaluations and was analyzed for the purpose of evaluating and comparing instructional techniques. This study made use of pre-existing data and no data was collected for this study.

\(^{67}\) The results of the correlation analysis are set out in Table 1, at 33 and discussed \textit{infra}, at 32-39. Correlation studies are a measure of the relationship between a presumed predictive element and the thing it is presumed to predict. For example, if a spelling pretest is presumed to predict the result of the final spelling test, a correlation study of the two tests could be performed. If every student got the same number of answers correct on the pretest and the final test, or there were some other constant relationship such as every student improving by the same percentage from pretest to retest, there would be a 1 to 1 correspondence between the two. The pretest would be perfectly predictive and the correlation coefficient would be 1. If the results on the pretest bore no predictable relationship to the final test, that is, if some students did very well on the pretest and badly on the final test, while other showed the reverse pattern and others were distributed in between, there would be no, or a statistically insignificant (the result could not be distinguished from a random result) relationship and the correlation coefficient would either be reported as statistically insignificant or 0.01. The correlation study offers data on whether, and to what degree, there is a constant, predictable relationship between the things analyzed. High correlation coefficients can leave a good deal of unexplained variation. Correlation gives information about average performance across the whole group.

\(^{68}\) The results of the cluster analysis are set out in Table 2, at 41. Cluster analysis is defined \textit{infra}, at note 85 and the results of the analysis are discussed \textit{infra}, at 40-47.
ferent and independent skills, abilities or intelligences. The relative strength of the correlations among the subscores for each of the two kinds of assessment, examination and simulation, compared to the weak correlations between simulation and examination scores, is evidence of the relative independence of the skills measured by each form of assessment. Students who scored above average on one of the simulation subscores tended to perform above average on the other simulation subscore. Although those students also broadly tended to score above average on the two exam subscores, that relationship was not as strong as the relationship among the simulation components.

### Table 1

**Correlations between 5 Individual Subscores**

<table>
<thead>
<tr>
<th>Test</th>
<th>1-gen'l partic</th>
<th>2-coun. sim</th>
<th>3-neg. sim</th>
<th>4-ex. coun. Q</th>
<th>5-ex. neg. Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-gen'l part</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-coun. sim.</td>
<td>.49</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-neg. sim.</td>
<td>.46</td>
<td>.40</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-ex. coun. Q</td>
<td>.17</td>
<td>.18</td>
<td>.19</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>5-ex. neg. Q</td>
<td>.24</td>
<td>.26</td>
<td>.23</td>
<td>.36</td>
<td>1.0</td>
</tr>
</tbody>
</table>

There was high correlation of scores among the simulation components. Subscore 2 and 3, the scores on the two major simulations, were most highly correlated with subscore 1, the general participation grade. The two major simulations, subscores 2 and 3, were strongly correlated with each other, although the relationship between the two simulations was not as strong as the relationship between each of the major simulations and the general participation grade.

---

69 All the correlation results are statistically significant, (p < .001), largely because the sample size is so large. Any correlation analysis using this much data would likely reveal some patterns not explicable by chance, although the causes of those patterns might be hard to determine.

70 Subscore 1, general participation, had a correlation of .49 with subscore 2, the counseling simulation, and .46 with subscore 3, the negotiation simulation. Student who did well on at least one major simulation had a strong tendency to get a high general participation grade. If a student did poorly on the major simulation, they tended to get a low general participation grade.

71 Subscores 2 and 3, the two major simulations, had a correlation of .40.

72 This suggests that faculty who liked one simulation by a student were likely to give a high grade to same student’s other work in the small group. See infra note 73. The higher correlation between the subjective measures than that between the blind graded measures is troubling. It suggests that some of the correlation among the subjective elements may flow from preconceptions or assumptions about the student based on earlier work, rather than the work at hand. There is the danger that an early strong grade will attract other strong grades for the student and a early weak grade will be difficult to overcome. The impact of non-blind grading on clinical evaluation might receive further study, perhaps using regression analysis. It could be useful to determine if blind and known subject grad-
Both the general participation grade and the simulation grades evaluate tasks that require oral linguistic, interpersonal and intrapersonal intelligences, as well as logical mathematical intelligence. Students who impressed their evaluators as having strength in the first three areas over the course of the semester and who thus received high general participation grades would be very likely to present those same strengths in the major simulations. The slightly lower correlation between the two simulations may best be explained by the probability of some students having a bad day for one of the two simulations and so not meeting the potential they had exhibited during the longer observation period offered by the general participation grading.

The two parts of the exam, subscores 4 and 5, had a strong correlation with each other, but not as strong as the correlations among the three simulation components.\textsuperscript{73} The correlation between the two exam questions seems straightforward; students who have strong written linguistic abilities and good logical mathematical ability - the good test takers - will tend to do well on any test.\textsuperscript{74} The higher correlations among the subjective grades may reflect some combination of the graders tendency to confirm their own judgments by giving high grades to those to whom they have given high grades and the consistency of their subjective judgments of known students.

The simulation subscores had very weak correlations with the exam tests on the same material.\textsuperscript{75} This weak correlation between

\textsuperscript{73} Subscores 4 and 5, the two blind graded parts of the exam, had a correlation of .36. This is not as strong a correlation as among the simulation components, which were not blind graded and gives rise to the concern about the subjectivity of the simulation grades.

\textsuperscript{74} Successful test takers tend to be good writers who work well under time pressure. Good writing, characterized by clear, grammatical and well constructed sentences, will often garner high marks, if it is accompanied by some modicum of logic. This is not to devalue good writing; it is a tremendous asset to a lawyer, in part because it remains scarce in relationship to the demands of the marketplace. It is not, however, the only valuable skill for a lawyer, nor is it a reliable predictor of other lawyering skills.

\textsuperscript{75} The correlation between the scores for the negotiation simulation and the negotiation exam question and between the negotiations simulation and the counseling exam question are quite weak. The numbers that follow are statistically significant but very weak correlations. As explained supra note 70, the large sample size makes it likely that even very small correlations will be statistically significant. That should not be confused with the explanatory significance of the result. Subscore 3, the negotiation simulation, and subscore 5, the negotiation question on the exam, had a correlation of .23. One way to think about this correlation is to note that performance on the simulation explained less than 5% of the variation in exam performance. Subscore 2, the counseling simulation, and subscore 5, the negotiation question on the exam, had a slightly higher correlation of .26, explaining just over 5% of the variation. The correlation between the general participation grade and the counseling simulation, .49, accounts for 25% of the variation between those two subscores. The negotiation exam test had a slightly higher correlation with all the simulation subscores than did the counseling exam test. Subscore 5, the negotiation exam
each simulation and its examination counterpart would have surprised and disappointed me before I taught the course. My working assumption while designing the class was that there was a relatively straightforward relationship between theory and experience. I thought the course could achieve my goals by offering a combination of the two, alternating relatively small pieces of theory and experience. I assumed that most students would simultaneously improve in each sphere, developing both their practical skills and their abstract power to analyze both the skills and the substantive areas in which they exercised those skills. I now appreciate that the interrelationship between theory and experience, as it leads to learning, is much more complex than I assumed. That greater complexity stems, in no small measure, from the independence among the various aptitudes I am trying to help students develop.

My experience in the course made me rethink how experience and theory work, or do not work, together for a particular student. Some students can recite the theory, but remain unable to execute it or identify its components in practice. This can be understood as an aspect of the independence of multiple intelligences. A student with strong logical mathematical aptitude may be able to recite the elements of the canonical counseling model, but may lack the interpersonal skill to lead a client through it or the intrapersonal skill to analyze his or her own performance. The data suggest that more typically students combine strong personal intelligences and less well developed test taking abilities.76

Another wrinkle in analyzing the relationship between theory and practice in this course is accounting for the textures of the particular theoretical contexts on which the class focused.77 Broadly speaking, negotiation theory is better developed and more accessible to legally trained thinkers than counseling theory. The data shows that the negotiation exam question correlated more strongly with each of the simulations than did the counseling exam question, which was least predictive of performance on any other indicator. This is consist-

76 See infra at 931-34.
77 Legal reasoning, like all reasoning, is context sensitive. Each domain of knowledge has its own characteristic style of analysis. Legal educators need to better understand the distinctive nature of legal analysis and account for the progression of students from novice to expert legal analysts. Weinstein, supra note 20; see generally Bradsford et al., supra note 10 (recommending, based upon a review of current research in education and cognitive science, that educators should strive to help students become adaptive experts, teaching deep knowledge in ways appropriate to the specific subject area, rather than covering the broadest swath of factual material).
tent with my sense that client counseling, as a theoretical area of study, presents unique challenges for law students. In comparison to negotiation theory, with its well developed taxonomy of styles and strategies and links to game theory,\textsuperscript{78} client interviewing and counseling presents less well defined issues that typically end in judgment calls about how to participate in a dynamic interaction. It is a much less well theorized area in the law than negotiation. That may be because it has been less studied, or because it is much more complex or perhaps because it is not well suited to the kind of theory favored by law schools and lawyers.\textsuperscript{79} Although I continue to believe that studying interviewing and counseling makes some people better counselors,\textsuperscript{80} my experience and this data make me think that developing the skill of legal counseling is a very complex learning task.

The very weak correlation between performance on the simulation in a given area and the test question in that area calls for further study and perhaps rethinking of our use of theory in skills teaching. It appears that executing a robust theoretical model in a simulation is a very high level skill, which many students cannot execute as beginners. The theory of multiple intelligences gives us another way to think about how many different, independent demands a simulation places on our students and how much variation there is among students' particular combinations of abilities. Perhaps it would be useful to teach some high level theory as a long term investment, but to also try to offer some very basic, stripped down models to inform developing skills simulation. It may also be useful to work in greater depth, sacrificing coverage of material, to give more students the opportunity to integrate theory into their simulations.\textsuperscript{81}

\textsuperscript{78} See e.g., John S. Murray, Alan Scott Rau & Edward F. Sherman, Processes of Dispute Resolution 73-191 (1996)(presenting traditional negotiation theory with style/strategy distinction, taxonomies of each and game theory); Gifford, supra note 39, at 13-22 (same).

\textsuperscript{79} Efforts to use the very well developed theories from psychology and related disciplines have a problematic history in law schools. Although David Binder, Paul Bergman and Susan Price made an enormous contribution to legal education by applying psychological insights to attorney client interactions, Binder et al., supra note 21, their orientation has earned them criticism from many, including a good portion of my students, who criticized the book as soft, "touchy-feely" and not appropriate for law school.

\textsuperscript{80} In my experience, it makes some people better analysts of other interviewers and counselors and it makes others better at both analyzing and doing it. This is another example of the independence of the skills or aptitudes required for carrying out these tasks and the skills or aptitudes required for analyzing them.

\textsuperscript{81} The quality, sequencing and assessment of the impact of theoretical material all pose issues. We need better counseling theory, whatever that might look like. It may also be the case that many law students do not sufficiently master, or perhaps even read, the theory until after they have done the simulations and are preparing for exams at the end of the semester. Although the fact that most of the good exam takers do well on the simulations suggests that sequencing is not the key issue, this data does not offer any but the
Perhaps as expected, when all the small group work is compared to the exams, the correlation between those two parts of the course is somewhat higher than among the individual pieces from each subset. The two exam question subscores, together, correlated somewhat better with the combined simulation scores than did any of the subparts.\textsuperscript{82} This is consistent with the unremarkable proposition that students who did well in the simulations tended, overall, to do well in the exam, and combining the data in each part smoothed out the differences between particular subparts.

The higher correlation,\textsuperscript{83} or greater dependence, among the sub-scores in each part of the course, simulation and exam, than between the two subsets, simulation and exam, suggests that each evaluative method tests different skills, abilities or performances and that those skills or abilities are, to some degree, independent of each other. While some students perform well or poorly on all parts, as would be expected if the simulations and exam measured the same skill, ability or intelligence, a significant portion of the class performed much better on one kind of test than on the other.

\textbf{B. Cluster Analysis}

Cluster analysis\textsuperscript{84} was also performed on the data. The patterns revealed by the cluster analysis provides additional support for the explanatory power of the multiple intelligences theory in interpreting the students' performances.\textsuperscript{85} The best fit divided the group of 544
grossest measure, as a simple overall score, of how well any student understood the theory at the time of the simulation and in this particular course counseling, which appears to offer the problematic relationship between theory and practice, was offered early in the semester. Finally, the last point also makes it clear that this data offers a very limited assessment of the role of theory in the process of developing lawyering skills.

\textsuperscript{82} Subscores 1, 2 and 3, the simulations and general participation scores, taken together had a correlation of .32 with subscores 4 and 5, the two exams questions, taken together. This data is not reported on the chart. The results are statistically significant, (p < .05).

\textsuperscript{83} These are relative degrees of dependence or independence.

\textsuperscript{84} "Cluster analysis classifies a set of observations into two or more mutually exclusive \textit{unknown} groups based on combinations of interval variables. The purpose of cluster analysis is to discover a system of organizing observations, usually people, into groups where members of the group share properties in common." \textsc{David Stockburger}, \textsc{Multivariate Statistics: Concepts, Models and Applications}, at \url{http://www.psychstat.smsu.edu/multibook/mlt04m.html}. The basic idea of the cluster analysis is to find groups, or clusters, of students whose pattern of performances were similar. The statistical trick is to find the right set of clusters. As the group is divided into smaller units, more patterns can be found. For this data, division into four clusters best fit the data.

\textsuperscript{85} As argued below, the exam scores cluster or group in patterns that fit the multiple intelligences hypothesis, although the cluster analysis only looks at the scores. Stockburger notes, "Cluster analysis methods will always produce a grouping. The groupings produced by cluster analysis may or may not prove useful for classifying objects. If the groupings discriminate between variables not used to do the groupings and those discriminations are
students for whom data was available into four groups. The 94 students in cluster one, the low performing group, scored below the mean for the whole group on all five subscores and had the lowest average scores on all five subscores.\textsuperscript{86} Cluster two, the 156 high performing students, scored above the mean on all five subscores and had the highest average scores, out of the whole group, on four of the five subscores. Cluster three, the 184 high simulation/low examination scoring students, scored around the mean, and below cluster two on the three simulation based subscores and dipped below the mean and close to group 1 on the two exam subscores.\textsuperscript{87} Cluster four, the 110 lower simulation/high examination scoring students, had simulation scores around the mean for the whole group and just below the simulations scores of cluster three, putting them in third place for the simulations. On the exam, however, these students scored above the mean, switching places with and outscoring high achieving cluster 2 on one of the exam parts.\textsuperscript{88}

\begin{table}
\centering
\caption{4 Cluster Solution}
\label{table2}
\begin{tabular}{cccccc}
\hline
 & Test 1 & Test 2 & Test 3 & Test 4 & Test 5 \\
\hline
Cluster 1 & 19.5 & 19 & 18.5 & - & - \\
Cluster 2 & 19 & 18.5 & - & - & - \\
Cluster 3 & 18.5 & 18 & - & - & - \\
Cluster 4 & 18 & 17.5 & - & - & - \\
\hline
\end{tabular}
\end{table}

useful, then cluster analysis is useful." \textit{Id.}

\textsuperscript{86} The range of exam scores was both lower and smaller than the range of simulation scores. I partially accounted for this problem in the final grading by standardizing the scores and measuring standard deviations for each subscore, statistical procedures which helped minimize the unfairness caused by the differences among the subscores. This study, however, uses the unstandardized scores. There are actually only three different values for the four clusters for each exam question, with clusters 1 and 3 at the same value for subscore 4 and clusters 2 and 4 at the same value for subscore 5.

\textsuperscript{87} On subscore 4 cluster 3 scored the same as cluster 1. On subscore 5 cluster 3 scored slightly above cluster 1.

\textsuperscript{88} Indeed cluster 4 scored above cluster 2 on subscore 4, and the same as cluster 2 on subscore 5.
Looking at just the top and bottom groups, low performing cluster 1 and high scoring cluster 4, the data are consistent with either a single intelligence hypothesis or the view that these students happen to demonstrate high or low achievement across two or more intelligences or competencies. For about half the group, students who did poorly in simulation continued to perform poorly on the exam\textsuperscript{89} and students who did well on the simulations continued to do well on the exam.

The 294 students in the two middle groups, however, paint a more interesting picture. Cluster 3, higher simulation/low exam, performed second best on the simulations. They scored not as highly as the high scoring cluster 2, but slightly better than cluster 4, lower simulation/high exam. But clusters 3 and 4 crossed paths on the examination. Cluster 3, higher simulation/low exam, nosedived down to cluster 1 on subscore 4, and edged up just a bit to come out above cluster 2 on subscore 5, but just barely. Cluster 4, lower simulation/high exam, which scored just below cluster 3 on the simulations, then vaulted into first place, above high performing cluster 2 on subscore 4 and came to rest with high achieving cluster 2 on subscore 5.

These students in clusters 3 and 4 combined performances, and apparently their abilities, in differing ways. The 184 students in cluster 3, higher simulation/low exam ranked second in overall performance on the simulations, with scores significantly lower than cluster 2\textsuperscript{90} (the high performers) and a small interval higher than cluster 4. On the exam, however, group 3's performance plummeted, while group

\textsuperscript{89} The whole group is relatively high achieving, given Fordham Law School's rigorous admissions requirements. Virtually all of these students will go on to graduate from the law school, pass the bar exam and most will practice law. My own experience suggests to me that this bottom group is composed of a combination of two groups of students. Some simply pay little or no attention to the class. They may ignore the assigned materials, skip class or otherwise simply not engage in some or all of the class activities. These students may lack motivation generally, think little of the particular course or have some particular personal situation demanding their attention that semester. Some of the differences among the groups is a reflection of how much work the individuals choose to do, rather than an indication of their abilities. Some more able students perform better with less preparation. Another portion of the low performing group seems to lack ability. They may not understand the assigned material, although they appear to have read it, they may offer muddled analysis in both the simulation and critique or they may be able to discuss concepts but display little ability to execute a particular task in conformity with what they have read or said. Although this footnote treats ability and motivation as distinct, Gardner makes the argument that motivation is part of the intrapersonal intelligence and the explanation for a given student's performance is likely to be quite complex.

\textsuperscript{90} The average scores on the simulations and general participation ranged from 19.1, out of 20, for the high performing group 2 to 17.5 for the lowest performing, group 1, a range of 1.6. Group 3 had an average score of 18.6, while group 4 had an average of 18.35. Overall, group 3 performed about .25 points higher than group 4 on the simulation and general participation subscores.
4's skyrocketed.\(^9\) Group 3’s performance was quite close to group 1, the low performers, while group 4 surpassed group 2, the high performers, on subscore 4 and about equaled group 2 on subscore 5.

For these students, whose performance fell into the middle range on the simulations, slightly weaker simulation performance was associated with much stronger exam performance, while slightly stronger simulation performance was followed by much weaker exam performance. In these groups the two different subparts, simulation and exam, reached different skills or abilities. The group that had the second strongest simulation skills demonstrated exam skills about equal to the lowest performers overall.

The cluster analysis suggests a more subtle view of the independent intelligences hypothesis. Cluster 3, the higher simulation/low exam group, appears to be composed of students who have strong personal intelligences, somewhat strong oral linguistic and logical skills. On this view, these students have many abilities. They may simply have less well developed written linguistic aptitude, which may be no more than a fancy way of saying they are poor test takers, although it does help to suggest some of the limits of written exams. The lower simulation/high exam group, cluster 4, might also be simply viewed as comprised of students with particularly strong written linguistic skills and somewhat less developed interpersonal intelligences. Taking all four groups together, however, the picture appears a bit more complicated.

Although a few students combined high exam and simulation scores at the bottom of the group, that combination is rare enough so that the best cluster fit found no group with that profile. There is, of course, a significant group of high simulation and low exam scores, cluster 3. Although the correlation analysis showed a relationship between exam scores and simulation performance, cluster analysis makes the relationship quite graphic. Some students who perform well on simulations will not write strong exams, but it is rare to find a student who wrote a good exam who did not also do well on the simulations.

V. EXPLAINING THE CLUSTERS USING MULTIPLE INTELLIGENCES

At least two explanations fit this data. Exam writing may be identified as a higher order skill which always includes the lesser skills required in the simulations. This conception is a variation on the sin-

\(^9\) Group 4 went from an average score .2 lower than group 3 on subscore 3, the negotiation simulation, to an average score 1 full point higher than group 4 on subscore 4, the counseling exam question. On subscore 5, the negotiation exam question, the groups moved closer again, but group 4 remained .5 above group 3.
ingle intelligence theory. Any student who can write a high scoring exam will always have whatever abilities are required to do well in simulation. The simulation abilities, however, are "lower order" in the sense that they do not include all the exam skills, while the exam skills do include all the simulation skills. This idea explains the data, but only by labeling it. A more significant problem with this view is that it does not capture an important reality of legal practice. Lawyers who did not write good exams can be very successful in practice and those who write wonderful exams do not always succeed. Although one could argue that law school rewards some truer measure of ability than does practice, a better explanation would account for the social reality in a theoretically satisfying way.

The combinations of performances suggest that cluster 3, higher simulation and lower exam and cluster 4, lower simulation and higher exam, contain students with strengths in the personal intelligences and oral linguistic intelligence or logical mathematical and written linguistic intelligences, respectively. The first group, as I will argue more fully below, does well on the simulation by virtue of a strong performance in the interpersonal dimensions of the simulation. These students, however, do not write strong exams. The second group may not be as strong in the interpersonal dimension, but their logical mathematical strength is also displayed in the simulation and they go on to write strong exams. These two middle groups are made of identifiable types of lawyers and law students, the vast middle ground of lawyers, who have strong aptitudes for some lawyering tasks, but not all lawyering tasks.

Although I am arguing that exam writing does not capture some single, superordinate skill, the results suggest that doctrinal analysis, or logical mathematical reasoning, is quite important in both the simulation and exam settings. Before describing how the data fits the multiple intelligences model, I offer some description of the particular tasks the students undertook, in order to better understand the role of mathematical logical reasoning in the course. The simulation problems in this course have a doctrinal element; they all require students to understand and analyze some set of legal rules or principles and contain some information on the relevant law. One of the problems involves the legal issue of choosing among business forms - should the entity be a partnership, corporation or organized in some other way. The problem is designed so that the law is clear and broad enough to permit the client to choose among a range of options depending on non-legal factors, but the students must analyze the issue to reach that conclusion. Another problem involves the division of marital assets in a separation agreement. The students, in my judge-
Testing Multiple Intelligences

ment, need to understand the default rules in the area before they counsel or negotiate about these matters. Although we do not explicitly grade on whether or not the students get the right answer to the legal problem, it is very difficult for students to do a good job in any dimension of the simulation if they cannot analyze the law. It does not matter whether the weakness in the logical mathematical portion of the problem stems from their lack of ability, or more typically given my students' backgrounds, because they have not taken the time to understand the relevant law. Although I have had students to whom I have given strong grades in simulations in which they did not say a single sensible thing about the substantive law, it is a very rare event. Receiving a high grade on the simulations typically requires a relatively high degree of mathematical logical reasoning.

I offer two reasons for this practical centrality of mathematical logical reasoning, the second of which is more an admission than an explanation. First, most of the work lawyers do is at least framed by, if not centrally concerned with, the law as doctrine. Even as we may creatively seek non-legal solutions to our clients' problems, we do so in the shadow of whatever legal event or threat brought them to a lawyer. Although this is not the place to argue such a broad proposition, it is my strongly held view that lawyering is centrally about, or informed by, understanding the law as a logical, abstract system and making predictions about how others will analyze it.

Even if you are unconvinced that logical mathematical reasoning has a particularly central place in lawyerly thought, this course was designed and taught by someone who does hold that view. As lawyering is taught in many law schools, it tends to value logical mathematical reasoning. Perhaps clinicians value that intelligence less singularly than the rest of the institution, but many of us still place a high value on it. Whether it is because legal problems really have some deep logical structure or because we pretend they do in law school, students who have great strength in that area, and not others, may do as well or better in (even) a lawyering course, than those who great strength in personal intelligence is not matched in other areas.

Just as each simulated problem has a doctrinal element, each problem also presents issues that test a student's personal intelligences. The simulated client typically has some emotional issue related to the legal situation, such as making business decisions in the context of a family business or asset valuation in a marital setting. The client's goals and motivations are typically hinted at in the written materials and good preparation and execution will account for and explore those issues.

In this course, the students' lawyering must contend with doctrine
best addressed by logical mathematical intelligence and with dynamic interactions between lawyer and client, best addressed by the personal intelligences. The strongest students have both abilities and do well on both the simulation and exam. The weakest students either do not possess or use either set of intelligences. In the middle are clusters 3 and 4.

Cluster 3 are the higher simulation/lower exam students. These students do quite well in the simulations, scoring above two other groups, but their exam performance plummets. My sense is that these students show strengths in their simulations consistent with strong personal intelligences; they listen well, ask good follow-up questions, develop a good understanding of the client’s goals and situation and help the client make reasonable decisions. In their critiques, they are perceptive and insightful about their own behaviors and the dynamic between them and their clients or adversaries. Unfortunately, this group’s personal intelligences are not matched by their written linguistic or mathematical logical aptitudes and they perform quite poorly on the exam.

Cluster 4, the lower simulation/higher exam group has the opposite strengths and weaknesses. Their simulation performance is not quite as strong as cluster 3. They are students who may not always listen well, develop the full story or deeply understand their client’s goals, but their mathematical logical intelligence enables them to give good and sometimes creative legal advice and to talk about their performance and the legal context with insight during their critique. Although their oral linguistic skills may not be quite a strong, their aptitude for written linguistic expression, along with their mathematical logical skill makes them strong exam takers.

The slightly lower performance of cluster 4 on the simulations is consistent with this picture - their 20 or 40 minute sessions do not have the elegance and flow of their colleagues with greater personal intelligence, but they score points with their instructors by giving sound legal advice and offering logical analysis of their performances during their critiques. In comparison, the strong personal intelligences of cluster 3 students shine more in the simulations. They earn higher evaluations than their more abstract reasoning peers, but not as strong as those awarded to the top group, which combines all these talents.

VI. GENDER AND RACE

The data were also analyzed to determine if gender, race or year in school was a significant factor in student performance. Overall, women tended to do better in the course. Troublingly, students of color were over-represented in the lowest performing cluster of stu-
dents. Second year students tended to do better than third year students on the exam, but not on the simulations.

Women received scores about .13 higher than men for general participation, the negotiation simulation\(^9\) and the counseling exam question.\(^9\) Women's scores were also slightly higher on both other subscores, the counseling simulation and the negotiation exam question, but those two results was not statistically significant.\(^4\) Women were also over represented in clusters 2 and 3, the strong exam taking groups, but not to a statistically significant degree.\(^5\) Given that national statistics show that women law students have slightly lower overall grades than their male counterparts,\(^6\) their stronger performance in this class, relative to their male classmates, may be due to pedagogy, the course material or some other factor particular to this class.

Although the correlation analysis is consistent with the general perception that the course material is gendered, particularly in its emphasis on the interpersonal dynamics and ethical aspects of lawyering, the cluster analysis again paints a more complex picture. An essentialist view of gender would suggest that women would excel in the personal intelligences, yet women are over-represented in the two

\(^{92}\) For a discussion of the role of gender in negotiation simulations, see Farber & Rickenberg, supra note 37 (finding that women and men achieved similar outcomes but women tended to make harsher judgments about their own abilities than did men, particularly when less favorable outcomes were achieved in the course of the simulation and that contextual factors in the simulation, such as which party the student represented, mattered more to the female students' perceptions of success than to the male students' evaluations of their success in the exercise.)

\(^{93}\) The actual mean scores on these three subscores were between .12 and .14 (\(p < .05\)) higher.

\(^{94}\) The actual mean scores for the counseling simulation and negotiation exam questions were .07 higher but not statistically significant.

\(^{95}\) Women made up 48% of the total sample and 54% of clusters 2 and 4, while they made up 41% of cluster 1 and 43% of cluster 3.

groups that show strength in the exam and the group that ranked third in simulations, as well as first in simulations. Surprisingly to that simple essentialist view, men predominate in the cluster that did well through their strength in simulation and presumably the personal intelligences.

Although this data only reveals some gross patterns, I suspect that several factors worked together to create this pattern. The simulations by women, as a group, may not have been evaluated quite as highly as those by men because the instructors may have held the women to a higher standard. Perhaps we think women should be better at these skills and are pleasantly surprised if a man shows any facility for it at all. The difference may also reflect a greater willingness on the part of the men to be the center of attention and talk about themselves. A third factor may be the need for women to work harder at developing strong written skills so that they will test better and present stronger “objective” credentials to overcome biases they encounter earlier in their educational experiences. The picture is not clear and the results are not strong, but it appears that women do better in the blind graded exam than in the face to face evaluation of the simulation. This raises the troubling possibility that even a group of law school teachers, making a conscious effort to address issues of diversity, still act on unconscious and outdated ideas about who can and should be a lawyer.

Unfortunately, race continues to be a factor in law school grading overall, and in this class. White students received scores between .2 and .27 higher than students of color on four of the five subscores. There was no difference on the negotiation simulation. Students of color made up 26% of the overall sample, and were under represented in the high scoring cluster, comprising 15% of that group and over represented in the low scoring cluster accounting for 43% of that group. This result is consistent with overall grading patterns at this

---

97 The small group instructors were about evenly divided along gender lines, although the numbers varied from semester to semester. Given that there were never more than 8 of us, individual differences likely predominated over average group attitudes.
98 Ogloff, Lyon, Douglas & Rose, supra note 1 (study showing that minority graduates of Michigan Law School had lower GPAs of about 0.9%, but satisfaction with law school and career success similar to white graduates).
99 The difference was between .2 and .27 ($p < .001$), or between 1 and 1.4% of the total 20 point scale.
100 Perhaps the life experiences of students of color have given them more experience with negotiation and they are better at it than their classmates. Regression analysis would be required to begin to tease out the reasons for this difference. The negotiation grades were also higher overall and fell in a narrower range, see supra note 57, which made them less useful for distinguishing among performances than the counseling simulation grades.
101 Data on race was missing for about 20% of the sample.
102 $p < .001$.
Testing Multiple Intelligences and other law schools.

These troubling statistics have a number of causes. The difference flows all too naturally from the gross inequalities that characterize American education generally. At this, and other law schools across America, students of color come disproportionately from primary, secondary and undergraduate schools that struggle with fewer resources and greater challenges than the elite schools that many white students attend. Those problems, compounded by the biases in the LSAT, are reflected in lower test scores coming into law school. The hierarchy is then reaffirmed by the rigid ranking at the end of the first year of law school. As the grip of first year grades is unlikely to be relaxed, remedial efforts must be early and significant enough to address first year performance.

Systemic problems do not end with enrollment in law school. Once students of color become law students, they must contend with largely white institutions and the residue of usually, but not always, unconscious attitudes about who should and should not be a successful law student or lawyer. The results of this study suggest those problems pose a very real challenge for classes which use subjective, non-blind grading. Even as we tried to assess a broader range of skills and give every student an opportunity to better display his or her particular talents, it seems all too likely that we recycled our own biases about the profession, to the detriment of women and students of color. Educating the teachers about their own biases is one place to begin. Better defined grading guidelines for the simulations would also be useful, although care must be used to value diversity in those standards. This concern also further heightens the need for more diversity in faculty. Students might be evaluated by different faculty during the semester, although the gain in differing perspectives might be offset by the damage that would do to the development of student-faculty relationships.

These remain vexing problems. One part of the solution lies in continued efforts to nurture greater representation of people of color in the professions, including targeted academic support for students from less privileged backgrounds. The larger problem is the subject of much ongoing study and is much beyond the scope of this paper, but it is worth noting that multiple intelligences theory is just one part of a larger intellectual movement to understand and explain the fundamental value of diversity and pluralism in our society. Yet even as we recognize the larger problem, it is also important to recognize the foreground - the attitudes of even well intentioned law teachers. Un-

103 See supra at 935-36.
conscious biases may only be discoverable through careful analysis of our deeds, rather than projection of our hopes.

The available data did not permit analysis of the intersection of gender and race, nor was it possible to analyze the performances of different subgroups among students of color. The analysis of gender does not distinguish by race, and the analysis of race does not account for gender. It seems likely that the challenges for women of color are more complex than for white women. There are also likely to be distinct issues among different groups of students of color. Another factor unaccounted for in this study is class. This paper does not attempt to add to the rich discussion about the intersection of race, gender and class in American society. Analysis of the impact of each category on law school performance is an important project, and even the simple treatment of these issues in this paper leaves little doubt that these are significant and troubling issues.

VII. Year in School

Analysis of the data by class year and division membership (day and evening division students) showed that second year day students performed better on the exam, but not on the simulations. The second year day students bested their third year counterparts on subscore 4, the counseling exam question, but not subscore 5, the negotiation question. The second year day students performed better on both exam questions than the evening students. The second year students may be more motivated than their graduating third year counterparts or their evening division colleagues, who are a mix of second, third and fourth year students. The evening students’ performance may also reflect their busier schedules, as many of them have full time employment. The evening students, as a group, also have lower indicators coming into law school. Although it might seem that these same factors would have some effect on the simulation scores, it might be that time and motivation are not as significant earlier in the semester or these results may just be a further reflection of the independence of

\[104\] For evidence that socioeconomic factors are a key piece of this puzzle, see Kidder, supra note 3, at 183-84 (arguing that much of the over prediction of minority academic success by the LSAT is best explained by economic factors). Anecdotal experience at Fordham, traditionally a gateway school for upwardly professionally mobile students from lower class families, suggests that race is, in part, a surrogate for the challenges facing all students at very selective law schools who had fewer opportunities and attended less competitive colleges.

\[105\] Second year students performed significantly better than third year students on subscore 4 (p <.001), but not subscore 5. Second year students performed significantly better than evening division students on both subscores 4 and 5. (p <.005). There were no significant differences on subscores 1, 2 or 3.
these skill sets.

**Conclusion**

This paper suggests that there is significant degree of independence among the various skills law students need to develop to become successful lawyers. Although some people show strengths across the full range of skills, many law students show more promise in some areas than in others. Law schools should help students understand their own strengths and how they can match their own profiles to the wide range of opportunities presented by the law. Specialization and role differentiation is the reality of much of legal practice, yet law school pedagogy, particularly law school evaluation practices, reflect the aspiration to produce just one kind of lawyer, all of whom are measured on a single scale. We must develop a more nuanced understanding of the legal profession and a more sophisticated approach to educating our students about the variety of lawyerly roles and how they should choose among opportunities.

One important step toward helping law students navigate our complex profession is providing more varied evaluation formats. The over-reliance on exams fails to identify the group of students whose simulation performance provides evidence of their indication of probable success in many lawyer roles. We now give most students very clear, early information about their weaknesses. For most law students, much of the end of first year and the beginning of second year is taken up with learning how far they are from the top of the class and what that means about their prospects for the highest paying jobs and other high status positions. We might also try to tell our students about some of the things they are good at doing and, perhaps more revolutionary, we might begin to really value those talents.

If, for example, we accept that the personal intelligences are really independent, valuable abilities in the world, we might begin to prize skillful client counseling more than we do. If we coupled that awareness with an effort to identify our students aptitudes in the personal intelligences, we could help students develop a professional role around their strengths. Students with those strengths might more often see direct client service as an important and challenging career,

---

106 Defining what kind of lawyer that would be presents an interesting problem, requiring study of law school curricula and culture. Most law schools, and particularly elite schools, aspire to train judges and policy makers. In fact they turn out many transactional lawyers and civil litigators. There are also a number of schools that have defined their missions in other ways, whether because they mean to serve students with particular goals or because they serve a locality and teach to the local general practitioner. The clinical legal education movement has moved legal education toward more contextualized, role specific education in which one challenge is to balance the specific and the general.
rather than a path for those who did not get jobs at the biggest law firms. They could make better informed decisions about whether or not to work to improve in some areas and how to plan and prepare for their particular careers as lawyers. Students with traditionally recognized strengths might also be a little more humble and learn that writing high scoring exams is one valuable aptitude among a constellation of abilities. We do our students, and the profession, a disservice by graduating many students who feel unrecognized, and were in fact not educated as well as they could have been, by their law schools.