The Power of Skills: An Empirical Study of Lawyering Skills
Grades as the Strongest Predictor of Law School Success (Or in Other Words, It's Time for Legal Education To Get Serious About Integrating Skills Training Throughout the Law School Curriculum If We Care About How Our Students Learn)

Leah M. Christensen
THE POWER OF SKILLS: AN EMPIRICAL STUDY OF LAWYERING SKILLS GRADES AS THE STRONGEST PREDICTOR OF LAW SCHOOL SUCCESS (OR IN OTHER WORDS, IT'S TIME FOR LEGAL EDUCATION TO GET SERIOUS ABOUT INTEGRATING SKILLS TRAINING THROUGHOUT THE LAW SCHOOL CURRICULUM IF WE CARE ABOUT HOW OUR STUDENTS LEARN)

BY LEAH M. CHRISTENSEN†

INTRODUCTION

I have long believed in the power of skills training in legal education. Before beginning my teaching career, I practiced law for several years. As a result of my practice experience, I have seen the value of skills training from an external perspective—I know that to practice law competently, a lawyer needs to know more than simply how to "think like a lawyer" in the abstract. I also appreciate the value of skills training from the "inside" of

† Associate Professor of Law, Thomas Jefferson School of Law; J.D., 1995, University of Iowa; B.A., 1992, University of Chicago. I would like to thank my dedicated research assistant Darryn Beckstrom for her work in capturing and analyzing the data. This study would not have been possible without her skillful assistance.

† I use the term "skills" broadly to encompass a wide variety of first-year programs, including legal writing, lawyering skills, legal methods and/or legal skills courses. These classes undertake to teach first-year law students a variety of skills, including legal analysis, legal research, and effective written communication. In the Lawyering Skills class upon which I based this study—a one year course—I integrated client counseling and advocacy skills into the first-year curriculum. There is some controversy about whether first-year programs should be limited to "legal writing" or whether we should (or can) incorporate other lawyering skills into the first-year curriculum. See, e.g., Stefano Moscato, Teaching Foundational Clinical Lawyering Skills to First-Year Students, 13 J. LEGAL WRITING INST. 207, 218–19 (2007) (discussing that one drawback to integrating more skills into a first-year class is less time spent on actual legal writing). However, I tend to favor the integration of more skills into classes despite the potential hurdles.
the law school classroom. In my skills courses, I am able to place doctrine and skills in a practical context. I believe my students learn more doctrine when it is placed within a skills, or real-world, context. I also teach large-classroom doctrinal classes as well—and in each class, I work to integrate applied skills within the theoretical framework of the course. It is my personal belief that combining skills and doctrine in every law school course is the best way to maximize our students' learning and to prepare them to practice law.

The Carnegie Foundation appears to agree with this assessment. In March of 2007, the Carnegie Foundation released its findings after a two-year study of legal education. The study called for substantial reform within legal education, including more skills instruction and better teaching overall. "The dramatic results of the first year of law school’s emphasis on well-honed skills of legal analysis should be matched by similarly strong skill in serving clients and a solid ethical grounding," the authors note. "If legal education were serious about such a goal, it would require a bolder, more integrated approach . . . ."

It is time for legal education to get serious about integrating skills into the law school curriculum. For far too long in legal education, skills instruction has been relegated to secondary

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2 I am fortunate to teach both doctrine and skills, and my teaching of both types of courses informs each of them separately. I believe that I teach my larger "doctrinal" classes better because I have taught smaller "skills" courses, which allow me to emphasize a practical application of the law. I strive to combine skills, theory, and their application in all my courses.

3 In my Evidence course, it is quite easy to integrate skills and doctrine to illustrate the theoretical aspects of the Federal Rules of Evidence more clearly to my students. One example of how I integrate practical skills in Evidence is that I have each student write and argue an actual motion in limine. They receive credit for the written brief as part of the class. I think the students enjoy the oral argument on the motion most of all—which we hold outside of class. And I have been consistently surprised at how favorably the students comment upon the experience (in student evaluations) because it gives students an opportunity to experience the practical application of Rule 403 of the Federal Rules of Evidence to a specific factual situation. And this practical experience enhances their exam performance as well with regard to that particular rule.


5 See id. at 13; see also THE CARNEGIE FOUND. FOR THE ADVANCEMENT OF TEACHING, SUMMARY EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW 4-6 (2007), available at www.ryerson.ca/law/EducatingLawyerssummary.pdf [hereinafter SUMMARY OF EDUCATING LAWYERS].

6 See SUMMARY OF EDUCATING LAWYERS, supra note 5, at 4.
status within the traditional legal curriculum. Why is a theoretical subject more revered than a practical one that simply includes applied doctrine and theory? Indeed, there is a rich history about why this has occurred within the legal academy, but I am interested more in the "here and now" of legal education reform. I believe that law students learn most effectively when doctrine and skills are combined. Further, skills classes play a special role in enhancing student learning in law school; skills classes promote mastery-oriented learning. Mastery-oriented learners tend to be focused upon learning as something valuable and meaningful in itself. These students view learning tasks as ongoing processes and are more concerned with charting their own progress than comparing their progress to that of others. This Article describes an empirical study in which I found that law students who were mastery-oriented learners tended to be more successful in law school overall. Further, I found a correlation between mastery goal orientation and high grades in Lawyering Skills classes.

The study asked 157 law students to respond to a survey about their learning goals in law school. The student responses were then correlated to different academic variables, including class rank, Law School Admission Test score ("LSAT"), Undergraduate GPA ("UGPA"), and Lawyering Skills Grade. The results were significant: Lawyering Skills Grade was the strongest predictor of law student success. In contrast, the

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7 See Jan M. Levine, Leveling the Hill of Sisyphus: Becoming a Professor of Legal Writing, 26 FLA. ST. U. L. REV. 1067, 1090 (1999) (describing that the legal academy often uses adjunct professors to teach legal writing).
8 See id. at 1089–90; see also Kathryn M. Stanchi, Who Next, the Janitors? A Socio-Feminist Critique of the Status Hierarchy of Law Professors, 73 UMKC L. REV. 467, 477–79 (2004) (providing a rich and well-supported critique of the history of the divide between the teaching of legal doctrine and skills—legal writing).
9 See Steven I. Friedland, How We Teach: A Survey of Teaching Techniques in American Law Schools, 20 SEATTLE U. L. REV. 1, 24 (1996) (discussing how law professors, particularly in upper-level classes, use a practice-oriented methodology and place theory within a more practical context to enhance learning).
11 Dweck & Leggett, supra note 10.
12 See Leah M. Christensen, Data Summary 1–6 (June 30, 2008) (unpublished data summary, on file with the author) [hereinafter Data Summary].
13 Id. at 1.
LSAT was the weakest predictor of law school success. The study also found that law students who did well in their Lawyering Skills classes tended to be mastery-oriented learners and that law students who were mastery-oriented learners tended to have higher class ranks.

This Article explores the results of the study as they relate to the impact of skills classes on legal education. Part I of this Article describes the full study, its background and design, and the data calculation and analysis. Part II describes the results of the study, and, in particular, the results as they relate to Lawyering Skills Grade as the strongest predictor of law school success. Part III explores various conclusions we might draw from the data, including an exploration into why skills classes in particular may enhance law student learning. Finally, this Article concludes with the suggestion that law students learn most effectively when they are in classrooms that emphasize mastery goals over performance goals and when law professors integrate the skills of a lawyer within the theory and doctrine of the law.

I. STUDY BACKGROUND AND DESIGN

A. Study Background: Mastery Versus Performance Goal Orientation

One of the purposes of this study was to explore the relationship between law students' achievement goals and their successes in law school. Over the course of the last decade, psychologists have been using achievement goal theory as one framework with which to examine the relationship between law students' achievement goals and their loss of self-efficacy. See Leah M. Christensen, Predicting Law School Success: A Study of Goal Orientations, Academic Achievement, and the Declining Self-Efficacy of Our Law Students, 33 LAW & PSYCHOL REV. 57 (forthcoming Spring 2009). Hence, a description of the basic study design and study results is somewhat duplicative. The purpose of this Article, however, is to focus more specifically on the correlation between Lawyering Skills grades and academic success and on what that correlation may suggest to us as we think about legal education reform.
students' achievement goals and their academic success.\textsuperscript{17} Achievement goal theory examines the goals that students pursue in an academic setting.\textsuperscript{18} The current research suggests that there is a correlation between why a student wants to learn (achievement goal orientation) and his or her academic success.\textsuperscript{19} Dr. Carol Dweck, one of the leading scholars on achievement-goal theory, frames the issue regarding goal orientations as follows:

[I]ndividuals may strive for high grades for quite different reasons. They may seek high grades in order to prove that they are intelligent or as an index of learning or mastery of the material. In this approach, these two aims—seeking to prove one's competence versus seeking to improve one's competence—represent two qualitatively different classes of goals (\textit{performance} goals vs. \textit{learning} goals, respectively) and, as such, would be expected to have different patterns of behavior-cognition-affect attending their pursuit.\textsuperscript{20}

Dweck's research suggests that the most successful individuals "love learning." Successful individuals look for challenges; they use effort and they "persist in the face of obstacles."\textsuperscript{21} Dweck believes that the key to success is not ability so much as it is whether you look at ability as something inherent that needs to be demonstrated or as something that can be developed.\textsuperscript{22} Much of Dweck's research has explored why some students display these mastery-oriented qualities and others do not.\textsuperscript{23} Mastery-oriented learners are focused on learning as something valuable and meaningful in itself.\textsuperscript{24} They view learning tasks as ongoing processes and are more concerned with charting their own progress than comparing their progress to that of others.\textsuperscript{25} In contrast, students with performance-oriented

\footnotesize{\textsuperscript{17} See Carol Midgley, \textit{Preface} to \textit{GOALS, GOAL STRUCTURES, AND PATTERNS OF ADAPTIVE LEARNING}, at xi, xi (Carol Midgley ed., 2002).}
\footnotesize{\textsuperscript{18} See \textit{id}.}
\footnotesize{\textsuperscript{19} See \textit{CAROL S. DW Eck, SELF-THEORIES: THEIR ROLE IN MOTIVATION, PERSONALITY, AND DEVELOPMENT} 1–9 (Psychology Press 2000). Although this theory has been tested in elementary and secondary schools across the country, it has not been tested in law schools.}
\footnotesize{\textsuperscript{20} Carol S. Dweck, \textit{The Study of Goals in Psychology}, 3 PSYCHOL. SCI. 165, 165 (1992).}
\footnotesize{\textsuperscript{21} DWECK, \textit{supra} note 19, at 1.}
\footnotesize{\textsuperscript{22} Id. at 2–3.}
\footnotesize{\textsuperscript{23} Id. at 1.}
\footnotesize{\textsuperscript{24} See Krakovsky, \textit{supra} note 10; see also Dweck & Leggett, \textit{supra} note 10.}
\footnotesize{\textsuperscript{25} Dweck & Leggett, \textit{supra} note 10.}
goals want to look smart even if it means not learning as much in
the process.\textsuperscript{26} For performance-oriented learners, "each task is a
challenge to their self-image, and each setback becomes a
personal threat."\textsuperscript{27} So students motivated by performance goals
"pursue only activities at which they are more likely to shine—and
avoid the sorts of experiences necessary to grow and flourish
in any endeavor."\textsuperscript{28}

Every year, I see students with these different goal
orientations. While some of my students seem drawn to learn
primarily because of grades and exam scores, others students are
motivated to learn because they truly want to develop their
competence to practice law. Yet legal education is undoubtedly
the most performance-based academic curriculum of all graduate
schools. Some of the many criticisms of the traditional law school
curriculum are that law schools rely too much on grading
systems (as opposed to evaluation systems); that law schools
require norm-referenced grading, which undermine an effective
learning environment; and that "student ranking in legal
education is wholly counterproductive in a program designed to
prepare individuals to serve justice."\textsuperscript{29}

In such a performance-based curriculum, what types of
students succeed most readily? Do students who pursue
mastery-oriented learning goals have success in law school
despite its emphasis on a performance goal structure of legal
education? Or do students with performance learning goals
succeed in a performance-oriented goal structure?

I believe that the answers to these questions are extremely
relevant to any of us who teach in legal education. Research has
shown that teachers can influence their students' goal
orientations in the classroom and that the structure within which
we teach can affect our students' success.\textsuperscript{30} If the most successful
law students are mastery-oriented learners, it makes sense that
law school professors think more seriously about creating
mastery-oriented classrooms to enhance our students' success.
Further, if skills classes tend to promote mastery learning, then

\textsuperscript{26} See Krakovsky, supra note 10.
\textsuperscript{27} Id.
\textsuperscript{28} Id.
\textsuperscript{29} Barbara Glesner Fines, Competition and the Curve, 65 UMKC L. REV. 879, 879 (1997).
\textsuperscript{30} Id.
legal educators have every incentive to integrate skills more fully into the law school curriculum. In conjunction with the findings of the Carnegie report, the results of this study provide further support that law students will only benefit from continued and sustained efforts at legal education reform.

B. Study Design

This Section will describe the study methodology, including the survey design, participants, and data analysis. The survey used as the basis for this research was adapted from the Patterns of Adaptive Learning Scales or "PALS"—a questionnaire developed by researchers at the University of Michigan in order to conduct large-scale research on goal achievement theory as applied to elementary school and secondary school students. The main purpose of the PALS research was to determine how goal orientation theory could promote reform within public schools. As a result of their research, the PALS team developed and published scales (comprehensive survey questions) to assess various constructs associated with achievement goals. For consistency and reliability, I adopted the PALS survey with slight revisions to make the questions appropriate to the law school context. The survey questions were designed to examine the relationship between students' personal achievement goals in law school (mastery- or performance-based achievement goals) and correlate those achievement goals with academic success (class rank). I also asked students to provide their LSAT scores, UGPA, and Lawyering Skills Grades, as well as their class ranks.

31 See SUMMARY OF EDUCATING LAWYERS, supra note 5.
32 GOALS, GOAL STRUCTURES, AND PATTERNS OF ADAPTIVE LEARNING, supra note 17, at xii.
33 Id.
34 Id.
35 Id. at 2. I do not believe that class rank is the sole measure of "success" of any law student in law school. I believe that law students succeed in law school by branching out and engaging in numerous other activities. However, for the purpose of this study, I used class rank as one measure of success because it is one relatively objective measure with which to work.
The participants in this study were law students from a private, Midwestern law school and included first- through third-year students. We received 157 responses (eighty-one females; seventy-six males) and sent out approximately 230 survey requests.

The survey asked students to answer eighty-nine questions about their motivations for learning, their perceptions of the goal structures in law school, and their academic efficacy. The survey used a five-point scale in which students were asked to rate their responses to questions using a 1–5 scale (1 = “Not at all true”; 3 = “Somewhat true”; and 5 = “Very true”). The survey mixed questions from various scales whenever possible rather than presenting them as a set.

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36 The survey was conducted using an online survey site (SurveyMonkey.com), and e-mails were sent to the student body through their university e-mail accounts, notifying them of the opportunity to participate in a voluntary and anonymous survey. Within this e-mail, students were asked if they would like to participate in a survey that examined the learning environments of their respective law schools, as well as the students themselves. If students agreed to participate in the survey, they clicked on a link that would take them to the survey. Between February 25, 2008 and March 8, 2008, 157 responses were collected (eighty-one females and seventy-six males).

37 Fifty-two responses were from first-year students, sixty responses from second-year students, and forty-five responses from third-year students. Sixty percent of the respondents were 22–25 years of age, while 29% were between 26–30 years of age, 7% were between 31–40 years of age, and nearly 5% were above 40 years of age. Further, 87% of respondents were non-Hispanic white, while 13% were minorities. Sixty-seven percent of respondents were single, while 33% were married. Finally, most respondents were either humanities or social science majors in college—about 80% of respondents reported that they had majored in one of these majors. All the participants volunteered for the study. See Data Summary, supra note 12, at 1–6.

38 GOALS, GOAL STRUCTURES, AND PATTERNS OF ADAPTIVE LEARNING, supra note 17, at 10.

39 This five-point scale is called a Likert-type scale. A Likert scale is a psychometric scale commonly used in questionnaires and is the most widely used scale in survey research. When responding to a Likert questionnaire item, respondents specify their level of agreement to a statement. The scale is named after Rensis Likert, who published a report describing its use. See GAIL STEKETEE ET AL., DICTIONARY OF BEHAVIORAL ASSESSMENT TECHNIQUES 289 (Michael Hershen & Alan Bellack eds., 1988).

40 Typically, there were four to five questions relating to each variable. Mixing the questions improved the reliability of the participants’ responses. We also asked demographic and academic information.
For example, one of the questions read as follows:

PLEASE MARK THE NUMBER THAT BEST DESCRIBES
WHAT YOU THINK ABOUT THE STATEMENT....

1. I'm certain I can master the skills taught in law school.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT AT ALL TRUE</td>
<td>SOMEWHAT TRUE</td>
<td>VERY TRUE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Because the goal of this study was to discern the relationship between students' motivations for learning and law school achievement, I also asked students to provide their LSAT scores, UGPA, and Lawyering Skills Grade, as well as their class rank.41

After the surveys were completed, all of the responses were downloaded, and a large database was created. Further, lists of abbreviations, file names, and variable numbers were created and used in processing each question within the data set.42 All processing of data was done with a STATA statistical package.43 Descriptive statistics, including means, standard deviations, and percentages were generated, as well as Pearson correlations.44

II. STUDY RESULTS

Overall, I found that Lawyering Skills Grade was the strongest predictor of law school success followed by UGPA and LSAT score.45 It was very interesting to find that the LSAT had a very weak correlation to class rank in this study.46 I also found a strong correlation between mastery goal orientation and law school success (as measured by class rank).47 In other words,

41 See Leah M. Christensen, Student Survey 5–9 (unpublished survey, on file with the author) [hereinafter Student Survey].

42 I say "we" in this Section because the statistical calculations were run by my research assistant.

43 STATA is a data analysis and statistical software that we used to compile and analyze the data for this study. For more information regarding the capabilities of this software, see http://www.stata.com.

44 Analysis of the summary statistics included examining the mean, minimum value, maximum value, and standard deviation for all of the variables employed in this study. Further, the data was also examined to determine whether there were any missing values. See Data Summary, supra note 12, at 1–6.

45 See id. at 1.

46 See id.

47 See id. at 1–2.
those students who were mastery-goal-oriented learners were more likely to have higher class ranks than those students who were performance-goal oriented. In contrast, I found no relationship between performance goal orientation and class rank.48 Further, I found that law students with higher Lawyering Skills Grades were more likely to have a mastery goal orientation.49

The results of this study seem to suggest that there is a unique relationship between mastery goal orientation and academic success.50 These results, in particular, seem to support the prior research on goal orientation. However, this study also found a relationship between Lawyering Skills Grades and law student success. This result was interesting to me, and it caused me to ask the next logical question: What is it about students' performance in a Lawyering Skills class that may contribute to their overall successes in law school? The next Section discusses the study results in greater detail, and the third Section discusses the possible conclusions we may draw from these results.

A. Lawyering Skills Grade Was the Strongest Predictor of Law School Success

One of the issues that I explored was the relationship between class rank and three academic variables: UGPA, LSAT score, and Lawyering Skills Grade.51 The purpose of this calculation was to determine whether there was a statistically relevant correlation between law student success (class rank) and

48 See id. at 3–4.
49 See id. at 2.
50 Like any empirical study that examines correlations or relationships between variables, there are limits to the conclusions that we can draw. The correlations do not determine what caused the relationship—only that some relationship exists. I am well aware that any causation between variables is merely speculative on my part. That being said, the fact that, for example, there is a relationship at all between academic variables and class ranks can be very helpful information in and of itself.
51 See Data Summary, supra note 12, at 1; see also Jeff Kinsler, The LSAT Myth, 20 ST. LOUIS U. PUB. L. REV. 393, 393 (2001). LSAT is a standardized, 101-question multiple-choice examination. Over the past couple of decades, the LSAT has become “the single most important factor in the entire law school application process.” Id. It is more important than the UGPA, the reputation of the undergraduate institution, or the rigor of the undergraduate major. Id.
these different academic variables (UGPA, LSAT score, and Lawyering Skills Grade). In this study, Lawyering Skills Grade was the strongest predictor of law school success. Lawyering Skills Grade had a positive statistical correlation to class rank at a level of 0.57. There was a moderate positive correlation between UGPA and class rank at 0.46. Lastly, a weak correlation at 0.23 was found between LSAT score and class rank.

<table>
<thead>
<tr>
<th>Correlation to Class Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS Grade</td>
</tr>
<tr>
<td>0.57 (fairly strong correlation)</td>
</tr>
<tr>
<td>UGPA</td>
</tr>
<tr>
<td>0.46 (moderate correlation)</td>
</tr>
<tr>
<td>LSAT</td>
</tr>
<tr>
<td>0.23 (weak correlation)</td>
</tr>
</tbody>
</table>

In this study, Lawyering Skills Grade appeared to be a better predictor of law school success than either UGPA or LSAT score.

52 In statistics, a correlation is a measure of the strength of the relationship between two variables—in this case, the academic variables (LSAT, UGPA, Lawyering Skills) and class rank. A Pearson correlation is used to predict the value of one variable given the value of the other. Correlations are expressed on a scale from -1.0 to +1.0, the strongest correlations are at both extremes and provide the best predictions. The best known is the “Pearson r” correlation coefficient (also known as the “product-moment” correlation), which is obtained by dividing the covariance of the two variables by the product of their standard deviations. However, a correlation is not the same as causation—it suggests a relationship between two variables but not the cause of that relationship. See generally StatPlus 2007 Professional Help—Linear Correlation (Pearson), http://www.analystsoft.com/en/products/statplus/content/help/src/analysis_basic_statistics_linear_correlation_pe arson.html (last visited Dec. 30, 2009).

53 Data Summary, supra note 12, at 1. There is some debate in the social sciences as to how to determine the relative strength of correlations. Often, it depends on the variables being studied. In this case, the literature suggests that a 0.56 correlation is fairly strong (that is, the closer to +1, the stronger the correlation), and that 0.23 is weak. See Research Methods Knowledge Base, Correlation, SOC. RES. METHOD, http://www.socialresearchmethods.net/kb/statcorr.php (last revised Oct. 20, 2006).

54 Id.

55 Id.

56 Id. In this study, the correlations were all statistically significant at the 0.05 significance level.

57 Id. Consider that the LSAC rates the overall predictability of the LSAT score at .40. See LISA C. ANTHONY ET AL., LAW SCHOOL ADMISSION COUNCIL, PREDICTIVE
B. Mastery Goal Orientation: Successful Law Students Were Mastery-Oriented Learners

I also examined whether there was a statistically significant relationship between those students who had a mastery goal orientation and their law school class rank.\textsuperscript{58} I found that such a relationship existed; the most successful law students tended to be mastery-goal-oriented learners.\textsuperscript{59}

\textsuperscript{58} Although we looked for relationships between goal orientations and class rank, undergraduate GPA, and LSAT scores, class rank was the variable that statistically correlated to mastery goal orientation. See Data Summary, supra note 12, at 1–2.

\textsuperscript{59} Id. at 1–2.
Table 2: Mastery Goal Orientation and Class Rank:

<table>
<thead>
<tr>
<th>Academic Variable</th>
<th>Class Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastery Goal Orientation</td>
<td>Yes—Positive Correlation (strong)*</td>
</tr>
<tr>
<td></td>
<td>*Law students with high class</td>
</tr>
<tr>
<td></td>
<td>rank tended to have mastery</td>
</tr>
<tr>
<td></td>
<td>goal orientation</td>
</tr>
</tbody>
</table>

In the study, I assessed law students' orientation toward mastery goals with five questions. Law students were asked to rate their agreement or disagreement with the following questions:60

1) It’s important to me that I learn a lot of new concepts this year.

2) One of my goals in class is to learn as much as I can.

3) One of my goals is to master a lot of new skills this year.

4) It’s important to me that I thoroughly understand my class work.

5) It’s important to me that I improve my skills this year.61

I used two measures to determine mastery goal orientation. First, I calculated an average of the student responses to each of the five questions; second, I used a dichotomous measure of mastery goal orientation.62 I then examined the relationship

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60 We asked respondents to rate their responses to these questions on scales that were anchored at: 1 = “Not at all true,” 3 = “Somewhat true,” and 5 = “Very true.”

61 See Student Survey, supra note 41. These questions were mixed throughout the survey. See id. at 1–13.

62 A dichotomous measure is a variable that categorizes data into two groups. See The Decision Tree for Statistics, http://www.microsiris.com/Statistical%20Decision%20Tree/Glossary.htm (last visited Sept. 3, 2009). In this case, we used a dichotomous measure in which an average score of 4 or above on the five questions would be coded as 1 (more likely to be a mastery goal-oriented learner), and those with an average score below 4 would be coded as a 0 (less likely to be a mastery goal-oriented learner). This dichotomous split seemed to be adequate because the average for Mastery Goal Orientation ("MGO") on these five questions was 4.03.
between mastery goal orientation and class rank, as well as other academic variables.

The results revealed that mastery goal orientation was highly correlated to class rank and the correlation was both positive and statistically significant. Those law students with higher averages for their mastery goal orientation score were, on average, more likely to have higher class ranks when compared to those with lower averages for their mastery goal orientation scores.

C. Performance Goal Orientation: No Correlation Between Performance Orientation and Law School Success

The study also explored whether there was a relationship between law students with a performance goal orientation and law school success. Specifically, I was interested in whether law students with a performance orientation succeeded more readily, that is, had higher class rank, compared to other law students. The study results showed that there was no correlation between performance goal orientation and class rank. Those law students with higher (or lower) class ranks were not more likely to be performance-oriented learners.

There were five questions designed to measure performance goal orientation:

1) It's important to me that other students in my class think I am good at law school.

2) One of my goals in law school is to show others that I'm good at my class work.

3) One of my goals is to show others that class work is easy for me.

Nonetheless, even with these two measures of mastery goal orientation, they seemed to be relatively similar, as there was a positive correlation of 0.82 between them, which is extremely high. And this correlation is statistically significant at the 0.05 significance level. See Data Summary, supra note 12, at 1–2.

63 Again, the mastery-goal-orientated learning variable was identified by taking the mean of five variables measuring mastery-goal-oriented tendencies. The statistical correlation was \( r = 0.25, p < 0.05 \). See id.

64 Further, for the dichotomous measure, when the MGO was coded as an index in which those with averages of 4 and above were coded 1 and those with averages below 4 were coded 0, there was still a positive and statistically significant correlation between class rank and MGO learning \( (p = 0.19, p < 0.05) \). See id.

65 See id. at 3–4.
4) One of my goals is to look smart in comparison to the other students in my class.

5) It’s important to me that I look smart compared to others in my class.66

The students were asked to rate their level of agreement with each of these statements between 1 and 5. After collecting the responses, we averaged the scores for the five questions measuring performance orientation tendencies and examined a dichotomous measure.67 Overall, performance orientation was not correlated to class rank.68

Table 3: Performance Goal Orientation and Class Rank:

<table>
<thead>
<tr>
<th>Academic Variable</th>
<th>Class Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Goal Orientation</td>
<td>No Correlation*</td>
</tr>
</tbody>
</table>

*Law students with high class rank were not more or less inclined toward performance goal orientation.

D. Higher Lawyering Skills Grades Correlated to Mastery Goal Orientation

Finally, this study explored the question of whether law students who did particularly well in their Lawyering Skills classes tended to be mastery-goal-oriented or performance-goal-oriented students. The study results illustrated that there seemed to be a relationship between Lawyering Skills Grade and mastery goal orientation.69 Those students with higher Lawyering Skills Grades were more likely to be mastery-goal-

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66 These questions were mixed throughout the survey. See Student Survey, supra note 41.
67 We also used a dichotomous measure for Performance Approach Goal-Oriented Learning ("PAO") in which an average score of 2.5 or above would be coded as 1 (more likely to be a mastery-goal-oriented learner) and those with an average score below 2.5 would be coded as a 0 (less likely to be a mastery-goal-oriented learner). See Data Summary, supra note 12, at 3.
68 Id. at 3–4.
69 Id. at 2.
oriented learners. In contrast, there was a weak negative correlation between Lawyering Skills grade and Performance Goal Orientation, suggesting that higher Lawyering Skills scores may correlate to lower levels of performance goal orientation.

There was a positive correlation between Lawyering Skills Grade and the dichotomous variable used to measure mastery goal orientation—suggesting that those students with higher Lawyering Skills Grades tended to rate themselves as mastery-oriented learners. In contrast, there was a negative correlation (weak) between Lawyering Skills Grades and performance goal orientation, which may suggest that those law students with lower Lawyering Skills Grades might be more likely to be performance-goal learners. Table 4 summarizes these results:

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70 See id.
71 See id. at 4.
72 Id. at 2.
73 Id. at 4. There was a slight positive correlation between Lawyering Skills grades and the dichotomous variable used to measure mastery goal-oriented learners, suggesting that those who have higher Lawyering Skills Grades are more likely to be mastery-goal learners when compared to those who have lower Lawyering Skills Grades ($r = 0.01$); it is a fairly weak correlation, but it does suggest a relationship. See id. at 2. There was also a weak negative correlation between Lawyering Skills Grade and performance goal orientation (suggesting that higher Lawyering Skills scores may be correlated with lower levels of performance goal orientation). However, given the weakness of this correlation, it is difficult to draw any concrete conclusion—instead, it suggests a relationship. For the average measure of performance goal orientation, the correlation is $r = -0.06$, and the dichotomous measure is $r = -0.09$. See id. at 4.
Table 4: Mastery Goal Orientation and Lawyering Skills Grade:

<table>
<thead>
<tr>
<th>Academic Variable</th>
<th>Lawyering Skills Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastery Goal Orientation</td>
<td>Yes—Positive Relationship*</td>
</tr>
<tr>
<td></td>
<td>*Law students with high Lawyering Skills Grades tended to have mastery goal orientation.</td>
</tr>
<tr>
<td>Performance Goal Orientation</td>
<td>Yes—but Negative Relationship*</td>
</tr>
<tr>
<td></td>
<td>*Law Students with high Lawyering Skills Grades tended not to have performance goal orientation—or in other words, law students with a performance goal orientation tended to have lower Lawyering Skills Grades.</td>
</tr>
</tbody>
</table>

The correlation between Lawyering Skills Grade and mastery goal orientation suggests that there may be a relationship between skills classes and mastery goals and law students' overall success in law school. Those law students who were more successful in law school were mastery-goal-oriented learners. See id. at 1–2. In addition, those students who were most successful in their Lawyering Skills classes were also more likely to have a mastery goal orientation. See id. at 2. Furthermore, Lawyering Skills Grade was the strongest predictor of law school success. Id. at 1.

Although this study did not test to see which one, if any, of these factors may have caused the above relationships—that is, there could be several reasons why students with high Lawyering Skills Grades tended to be mastery-oriented learners—the results seem to suggest that at least some relationship does exist between these factors of mastery goal orientation, Lawyering Skills Grade, and law school achievement. And it could be argued that the relationship between these factors has important

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74 See id. at 1–2.
75 See id. at 2.
76 Id. at 1.
implications for legal education reform generally and for curricular reform specifically as it relates to the integration of skills courses within the law school curriculum overall.

The next Section will discuss the study results and the conclusions we might draw from these results in greater detail.

III. WHAT CONCLUSIONS CAN WE DRAW FROM THE STUDY?

In any empirical study where there is a correlation between study variables, it is difficult to determine whether one variable may have caused a particular result or whether there is simply a relationship between two variables and nothing more. In other words, in the present study, I can only speculate as to why students with mastery goal orientations were more academically successful overall. In addition, I cannot know precisely what caused the relationship between Lawyering Skills Grade and overall law student success. Nonetheless, the study results suggest that certain relationships do exist between mastery goals, skills classes and overall law student success. I believe it is worthwhile to consider why these relationships exist.

In this next Section, I will explore four factors that may explain why Lawyering Skills Grade, mastery goal orientation, and law student success are related. Although I will discuss these possibilities in terms of professional skills classes generally, I will draw upon specific examples from the Lawyering Skills class involved in this particular study.

Skills classes promote and enhance law school learning in four important ways: first, skills classes use a mastery-oriented goal structure in the classroom; second, skills classes adopt problem-based learning; third, skills classes incorporate collaborative learning; and fourth, skills classes give students opportunities to experience "right-brain" learning as opposed to "left-brain" learning, which dominates most coursework in legal education. The research has shown that each of these factors tends to enhance student learning and overall academic success.

77 See, e.g., JOHN MONAHA N & LAURENS WALKER, SOCIAL SCIENCE IN LAW: CASES AND MATERIALS 31–81 (3d ed. 1994) (describing generally that correlation does not imply causation in social science research).
Further, it is likely that each of these factors contributed in some way to the students' success in this study. The next Section will explore these factors in greater detail.

A. Skills Courses Promote Mastery Learning

In this study, there was a relationship between Lawyering Skills Grades and mastery goal orientation.\textsuperscript{78} There was also a statistical correlation between mastery goal orientation and class rank.\textsuperscript{79} Accordingly, these results suggest a relationship between skills classes and mastery goal orientation—both of which appear to promote law school success overall.\textsuperscript{80}

The prior research in achievement goal orientation supports this connection between mastery goals and legal skills education.\textsuperscript{81} Mastery goal orientation has been found to enhance adaptive patterns of learning.\textsuperscript{82} Evidence suggests that "when students report that they do their schoolwork with the purpose of learning, understanding, and improving, they are also likely to report adaptive cognitive, behavioral, and emotional outcomes."\textsuperscript{83} Although these studies focused on student learning in elementary and secondary education, the results are applicable to law school as well. "For example, mastery goals have been found to be associated with feeling academically efficacious, preferring challenging tasks, and persisting in the face of difficulties."\textsuperscript{84} Further, "mastery goals have been found to be associated with the use of effective cognitive and metacognitive strategies; the attribution of success to effort, interest, and strategy use; positive attitudes toward school and schoolwork; and even with positive general well-being."\textsuperscript{85}

\textsuperscript{78} Data Summary, supra note 12, at 2.
\textsuperscript{79} Id.
\textsuperscript{80} See id. at 1–2.
\textsuperscript{81} See, e.g., Dweck, supra note 19, at 10 (describing that in her research, most students in a mastery-oriented group performed better in challenging situations); Dweck & Leggett, supra note 10 (describing how mastery goals are associated with higher achievement).
\textsuperscript{82} See GOALS, GOAL STRUCTURES, AND PATTERNS OF ADAPTIVE LEARNING, supra note 17, at 26.
\textsuperscript{83} Id.
\textsuperscript{84} Id.
\textsuperscript{85} Id.
In a different empirical study examining law students who excelled in their Lawyering Skills II classes, Professor Ann Enquist noted that the most successful law students approached her course differently than less successful students. For example, Enquist found that the most successful students took notes and referred back to their notes when they were writing their briefs. They spent more time writing and revising. They were also more efficient with their use of time. Enquist also noted that the more successful students had different reading techniques "that included a number of strategies for making the material their own." Enquist reported that: "There was an obvious connection between their critical reading and critical thinking skills. As they read a rule, they thought through why it exists; as they read arguments in the cases, they thought through the arguments that would give them the desired result in their case." It appeared that Enquist's students used mastery-oriented skills.

In my own empirical research on legal reading, I found that the most successful law students read legal cases very differently than the less successful students. In essence, the more successful law students tended to use more mastery-oriented reading skills. For example, the more successful law students read with the purpose of preparing for a client interview. The successful students asked questions of the text and hypothesized potential resolutions—the students were engaged with the text as lawyers. I believe that this mastery-oriented way of legal reading correlated to the students' success in law school (as measured by class rank). And the results of the present study seem to support this same result: Mastery-oriented learning enhances law school success.

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87 Id. at 669.
88 Id. at 669–70.
89 Id. at 670.
90 Id.
91 Id.
92 See id. at 669–72.
94 Id. at 628, 634.
95 Id. at 628.
96 Id. at 626–27.
Personally, I strive to teach these important mastery skills in all of my classes, but I must admit that I have a greater opportunity to do so in my Lawyering Skills classes. In my experience, law professors who teach legal skills courses tend to create mastery goal structures within their classrooms. These mastery goal structures promote and support mastery-oriented learning.  

In my own Lawyering Skills courses, I want my students to develop a multitude of legal skills during the course, including learning how to structure a legal argument, developing the ability to gather facts and counsel clients, and gaining competence in both oral and written advocacy. My students are engaged in multi-sensory learning—they research the law, write memoranda and briefs, advocate and communicate orally, and apply doctrine to facts within their problems. My students tend to be actively engaged in the class because they are doing the work of lawyers. In this sense, the Lawyering Skills course seems to directly promote mastery-oriented learning because the students understand the connection between the skills they are learning in class and the future application of those skills in the practice of law. Although grades are still important to the students, the class goal structure emphasized mastery goals over performance goals.

Certainly, the fact that I have fewer students in my skills courses allows me to teach somewhat differently in a skills classroom. In addition, I am able to give increased feedback on student assignments and class exercises. Yet we need not confine our use of mastery-oriented goal structures only to skills courses in the law school curriculum. If anything, the results of this study suggest that law student learning is enhanced in all classes in which mastery goal structures are utilized. I have found this to be true in my own teaching. For example, in my Evidence class, we focus on the rules and theory behind the Federal Rules of Evidence, but we also apply those rules

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97 See supra note 80 and accompanying text.
98 The Lawyering Skills course covered the basics of legal writing and legal research during the first semester. As far as the writing requirement, the students wrote two legal memoranda and a trial-level motion and brief. The students also engaged in several client counseling exercises as well as a motion hearing. During the second semester, the students worked on an intensive research assignment. This initial research assignment was then used to form the basis of the remainder of the exercises and writing projects throughout the second semester. In other words, we used the same problem throughout the second semester of the course.
practically throughout the semester. I have students write motion briefs and conduct arguments on the motions.\textsuperscript{99} I give course points for these activities, but I do not grade the assignments on a curve because I want students to focus on “mastering” the project and the skills associated with it. The students seem to enjoy these assignments a great deal, and although it does create additional work for me in creating and evaluating the assignments, the benefits far outweigh the additional work.

In summary, courses that focus on mastery goals (that is, classes that focus on learning, understanding, and improving) enhance student learning in law school. In the present study, the mastery goal structures within the Lawyering Skills class may have contributed to mastery-oriented learners being more successful in that class in particular and in law school overall.

\textbf{B. Skills Classes Utilize Problem-Based Learning}

In addition to promoting mastery-oriented learning, skills classes may also enhance law school success because skills classes tend to use problem-based learning. Educational research has shown that problem-based learning may enhance overall academic success.\textsuperscript{100} Problem-based learning is a term used to describe a teaching approach where student learning is based upon problems as opposed to the case method, which focuses on reading cases and extracting rules from the cases.\textsuperscript{101} “The principal idea behind [Problem Based Learning] is that students’ learning should be based on carefully designed problems ‘that demand from the learner acquisition of critical knowledge, problem-solving proficiency, self-directed learning strategies, and team participation skills.’”\textsuperscript{102} Further, problem-based learning employs a mastery-oriented goal structure because it “replicates the commonly used systemic approach to resolving problems or meeting challenges that are encountered in

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{99} Students write a motion in limine requesting that the court exclude evidence from trial.
\item \textsuperscript{101} Id. at 623.
\item \textsuperscript{102} Id.
\end{itemize}
\end{footnotesize}
And the research has shown that problem-based learning has another unique and important effect: It shifts the responsibility for learning from professors to students.\textsuperscript{104}

This shift in responsibility from educator to student enhances student learning overall. Consider the traditional case method approach in which a law professor stands at the front of the classroom and lectures about a particular subject or case; professors impart their knowledge upon students who are expected to remember, understand, and apply this knowledge.\textsuperscript{105} The case method is "teacher-centered because the educational process revolves around what professors teach rather than what students do."\textsuperscript{106} In contrast, the Problem-Based curriculum is organized around problems; students are "active learners who work on problems or simulate problem solving."\textsuperscript{107} Professors take on the role of facilitators who guide students in their learning processes.\textsuperscript{108} Students work in smaller groups and "discover[] solutions on their own, gaining insights into their own performance, and acquiring skills and knowledge as they solve problems."\textsuperscript{109} Problem-centered learning is "student-centered" because the educational process comes out of what students actually do in the work that their professors guide.\textsuperscript{110}

Problem-based learning is seen by some as one of the most important developments in professional training.\textsuperscript{111} Yet traditional legal educators have resisted using problem-based learning—particularly in first-year courses. When students take their first series of law school exams, however, they are startled to realize that they are being asked to apply rules to a set of problems or hypotheticals—a problem-based form of assessment. In other words, legal education tends to test students differently

\begin{thebibliography}{111}
\bibitem{103} Id.
\bibitem{104} Id.
\bibitem{106} Id. at 327.
\bibitem{107} Id. at 326.
\bibitem{108} Id.
\bibitem{109} Id.
\bibitem{110} Id. at 327 (citing MARLENE LE BRUN & RICHARD JOHNSTONE, THE QUIET (R)EVOLUTION: IMPROVING STUDENT LEARNING IN THE LAW 89–97 (1994)).
\bibitem{111} Moens, supra note 100, at 624 (citing DAVID BOUD ET AL., THE CHALLENGE OF PROBLEM-BASED LEARNING 1 (David Boud & Grahame Feletti eds., Kogan Page Ltd. 2d ed. 1997) (1991)).
\end{thebibliography}
than it teaches them. Many of my students have found the dissonance between the way we teach and the way we test confusing.

For some students, they find a welcome refuge from this dichotomy in their first-year skills course. In a typical legal skills course, students are engaged in the work of "lawyering" itself. They are given problems in which they research a legal issue, analyze the problem, and construct a written prediction of the result in the form of a legal memorandum or other legal document. There can be many variations of this format, but skills courses generally use problem-based learning, and the research suggests that this methodology enhances student learning.

For example, problem-based learning "assists in the retention of knowledge because students more easily recall information, which is embedded in a factual context." In addition, problem-based learning encourages interdisciplinary thinking because the resolution of a problem may require that students apply knowledge in a new context. This can be seen in a typical first-year skills course in which students assess a given factual situation, research the applicable law, draft a legal memorandum, and predict a result. Students acquire "knowledge" and apply that knowledge through self-directed and small-group work both inside of and outside of the classroom. Students are engaged in their tasks, and they take ownership in and responsibility for their performance in the class. There is little doubt that the "contextual integration" of skills and

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112 Id. at 625 (citing Anita B. Szabo, Teaching Substantive Law Through Problem-Based Learning in Hong Kong, 11 J. PROF. LEGAL EDUC. 195, 203 (1995)).
113 See id. A good example of this is in the Lawyering Skills class that was the subject of this study. I taught this class in conjunction with four other professors—so there was some coordination between class content and format. Like the description of problem-based learning above, the series of research and writing problems in the course provided the "framework" for the students' learning. The students acquired "knowledge" and applied their knowledge through self-directed and small group work. Students were engaged throughout the semester. They took ownership in and responsibility for the class. Their research tied directly into their writing—just like it would in real life. They were allowed to consult and work with their peers in the class—just like in law practice. And their writing assignments progressed and flowed to simulate the development of an actual legal case—from a claim's inception and initial research, to settlement negotiations, and to trial preparation.
THE POWER OF SKILLS

doctrine better prepare students for the practice of law by facilitating the adoption of an “integrationist approach to the resolution of legal problems.”114

In addition, when problem-based learning is used as a teaching method, the traditional roles of teacher and student change in a positive way.115 Students become responsible for their own learning, which enhances their motivation and self-efficacy.116 In turn, professors can be used as “resources, facilitators, tutors, and evaluators, who guide students in their problem-solving efforts.”117 Students become self-regulated learners—a very important professional skill that is often overlooked in traditional legal education.118

And finally, problem-based learning teaches one of the most important skills for a new lawyer—problem solving. Ironically, problem solving is rarely taught explicitly in legal education.119 As one scholar points out: “Educational programs have the important ultimate purpose of teaching students to solve problems.”120 Yet legal educators have tended not to stress problem solving as an explicit theme.121 Instead, problem solving finds an “indirect expression in the teaching of legal skills courses, which use simulations of client problems.”122 Hopefully, with the Carnegie report fueling important changes in legal education, there will be a growing realization of how important the skill of problem solving is to the practice of law. And the results of the present study may provide further evidence that problem-based learning enhances student success. “If one accepts that learning how to solve problems is the ultimate goal of legal education, and that learning through problems is an

114 Id.
115 See id.
116 Id.
117 Id.
119 See Nathanson, supra note 105, at 328.
120 Id. (quoting ROBERT M. GAGNÉ, THE CONDITIONS OF LEARNING AND THEORY OF INSTRUCTION 195 (Earl Mc Peek et al. eds., Holt, Rinehart & Winston, Inc. 4th ed. 1985) (1965)).
121 See id.
122 Id.
essential learning method,” then legal educators have every incentive to utilize problem-based learning more consistently within its curriculum.\textsuperscript{123}

C. Skills Classes Use Cooperative Learning

Another distinctive component of first-year skills classes that may enhance student success is the use of cooperative learning. Cooperative learning is typically described as follows:

Cooperative Learning is a structured, systematic instructional strategy in which small groups work together toward a common goal. . . . Cooperative Learning is more than putting students in groups[,] . . . [for Cooperative Learning to be effective, the teacher must assure the following components: a well-designed instructional task, significant positive interdependence, considerable promotive interaction, substantial individual accountability, appropriate group social skills, and frequent group processing.\textsuperscript{124}

The current educational research validates the benefits of cooperative learning methods.\textsuperscript{125} Over six hundred studies have illustrated “that cooperative learning produces higher achievement, more positive relationships among students, and psychologically healthier students than competitive or individualistic learning.”\textsuperscript{126} In higher education, cooperative learning “enhances student learning and academic performance in small and large classes; it is especially effective when mastery is important and the task is complex and conceptual.”\textsuperscript{127} Because any legal issue is complex and conceptual, cooperative learning is ideal.\textsuperscript{128} Cooperative learning tends to “aid student development of their problem-solving skills, moral reasoning abilities, and high-level thinking skills such as analysis, synthesis, and evaluation.”\textsuperscript{129} Cooperative learning also creates positive student

\textsuperscript{123} Id.
\textsuperscript{126} Id. (citing DAVID W. JOHNSON ET AL., COOPERATIVE LEARNING: INCREASING COLLEGE FACULTY INSTRUCTIONAL PRODUCTIVITY 8 (Washington 1991)); see also Randall, supra note 124, at 218.
\textsuperscript{127} Hess, supra note 125.
\textsuperscript{128} See id.
\textsuperscript{129} Id.
attitudes, which increase their overall motivation. In addition, cooperative learning fosters better peer relationships among students. And finally, cooperative learning helps law students “manage stress, enhance their self-esteem, and avoid some of the psychological distress that accompanies competitive environments.”

I believe that law students benefit from cooperative learning. In the Lawyering Skills class involved in this study, I allowed students to work on initial aspects of the problem in small groups. They were allowed to research the problem in pairs—thereby using each other as learning resources. The students were allowed to discuss the problem and cases with anyone in the class, and we actively discussed the problem as a group as well. In addition, the students worked in pairs to prepare for and argue their motions on the written assignment. Although students were required to do their own written and editing work, the classroom environment allowed many opportunities for cooperative learning.

Based upon this study, I believe that one way the Lawyering Skills course enhanced student success was by using cooperative learning. In addition, the research suggests that any law school class—regardless of the number of students in the room or the content of the course—can benefit from the use of cooperative learning techniques. For legal education, this means that doctrinal classes as well as skills classes should incorporate cooperative learning exercises to enhance student learning. This could be as easy as having students work in pairs to discuss a short hypothetical in a class or having students work in small

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130 Id.
131 Id.
132 Id.
133 Further, students seem more satisfied with the course when I teach it using cooperative learning activities. I used to worry that they would get too much help from each other or that they would not work as hard in the class if they could lean on other students for help. I found the opposite to be true. Students were more attentive to their group responsibilities. They tended to work harder, but their satisfaction with the class overall went up. And, interestingly, I have never had a problem with maintaining the appropriate curve, that is, there were still differences in students’ work.
134 See, e.g., Hess, supra note 125, at 95 (describing his use of cooperative learning in his Remedies course).
groups to prepare a short presentation. The potential applications of cooperative learning are many and varied but the research is clear: Cooperative learning enhances the experience of all students in the classroom.

D Skills Classes Use “Right-Brain” Learning

Finally, skills classes may enhance overall law school success because skills classes promote right-brain learning in law school. The research has shown that the brain has two hemispheres and that each hemisphere is responsible for different manners of thinking. Although every person is different with regard to how these hemispheres function, “the left brain generally focuses on linear, sequential ideas, while the right brain concentrates on patterns and connections.” The right brain focuses on aesthetics, feelings, and creativity. The left brain tends to focus on discrete thinking and accurate analysis; the right brain connects the pieces into the bigger picture. In learning, these two processes complement one another:

The left brain grabs bits of potentially useful data from the environment, while the right brain relates them to one another. The left brain captures “text,” whether composed of words, numbers, or other isolated pieces of information, while the right brain interprets the context of those data.

135 Id. at 95–96 (discussing several suggestions for cooperative learning including a “[t]hree-minute discussion]” or the use of “team statements”).
137 Id. Merritt states:
Although scientists widely recognize this division of labor, they also note that the distinction between “left” and “right” brains is not quite this simple. Individuals vary in their allocation of the tasks between hemispheres, and those hemispheres almost always work together to achieve integrated results. Cognitive scientists, however, find the distinction useful as a way of describing the brain’s different, but related, systems.
Id. n.7. Merritt further states, “Educators similarly recognize that ‘[t]he two brain doctrine is most valuable as a metaphor that helps educators acknowledge two separate but simultaneous tendencies in the brain for organizing information.’” Id.
138 See id. at 42.
139 Id.
140 See id. at 42–43.
Students learn best when they draw on both parts of the brain, examining both the large and small picture. However, the research suggests that schools at all levels tend to favor left-brain modes of thinking, while downplaying the right-brain ones. Generally speaking, left-brained subjects focus on things like logical thinking, analysis, and accuracy. Right-brained subjects tend to focus on feelings and creativity.

In a recent article, Professor Deborah Merritt argues the importance of right-brain learning in legal education. Merritt argues that the right brain-left brain distinction holds an important insight for legal education and that students need right-brain thinking to succeed:

Legal study requires the type of integrative thinking that the right brain controls. Although law students must absorb prodigious amounts of data, they must also relate those pieces to the whole, synthesize principles, and apply concepts to new problems. As the amount of material transmitted in legal classrooms has expanded over the last three decades, requiring increased left brain focus, faculty may have drifted further than realized from right brain training.

Therefore, one of the challenges of legal education reform is to find ways to incorporate right-brain learning within a curriculum that is dominated by left-brain activities. For example, consider the case method, which focuses on case analysis as the tool for legal instruction. Professor Merritt suggests that the case method focuses too heavily on left-brained thinking because it “never releases the brain from the narrow harness of appellate litigation.” Legal education’s obsession with immersing first-year law students with doctrine may, in fact, limit their

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141 See id. at 43.
142 Id.; see also Kendra Van Wagner Psychology, Right-Brain Versus Left-Brain, ABOUT.COM, July 17, 2009, http://psychology.about.com/b/2009/07/17/right-brain-vs-left-brain.htm (describing that a person who is “left-brained” is said to be more logical, analytical, and objective, while a person who is “right-brained” is said to be more intuitive, thoughtful, and subjective).
143 Id.
144 Id.
145 Merritt, supra note 136, at 43–44.
146 Id. at 44.
147 Id.
148 Id.
149 Id. at 68.
intellectual growth. As Merritt points out, if professors rarely go beyond the case method, then law "faculty give students little opportunity to flex their mental muscles beyond the appellate context." Simply relying on the case method alone "lacks the right brain potential that the method initially promised."

Merritt's argument is persuasive particularly if we consider her theory in conjunction with the results of this study. In the Lawyering Skills course in this study, the students focused on problem solving in a real-life context. In the course, we took the time to consider the human elements of the problem; we discussed what claims the potential clients could bring, including the emotional and legal ramifications of those claims. We considered the "needs" of the parties that went beyond the legal causes of action. We discussed alternative dispute resolution. We talked about the law in terms of synthesizing the different cases within the jurisdiction to arrive at an applicable rule of law. These types of questions and discussions are critically important to the actual practice of law and they utilize right-brain thinking. They ask students to think about patterns, relationships, visuals, emotional intelligence, and consequences—as well as the analytical aspects of the law.

Although it may be easier to implement right-brain thinking in skills classes, this type of teaching and learning can be applied in every law school course—and it should not be limited to skills instruction alone. The research suggests that we need to foster our students' creativity, imagination, and feelings because these are the skills used in the practice of law. Regardless of whether a class is labeled as "doctrinal" or "skills," I believe that legal educators should increase their use of right-brain learning by incorporating more patterning, metaphors, analogies, role-playing, visuals, and movement into the reading, writing, and analytical activities of law school. When students learn to think using both the right side and left side of their brains, the result is better learning overall.

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150 Id.
151 Id.
152 Id. at 69.
CONCLUSION

It is time to end the longstanding divide between skills and doctrine in legal education, and it is time for legal education to go beyond training students to simply “think like a lawyer.” The results of the study discussed in this Article suggest that skills classes may enhance the learning and success of law students. In this study, Lawyering Skills Grade were the strongest predictor of law school success.\textsuperscript{153} Further, those law students who received higher grades in Lawyering Skills were more likely to be mastery-goal-oriented; and mastery-goal-oriented students tended to be the most successful students in law school.\textsuperscript{154} Based upon the results of this study, the best advice we can give to our beginning law students is to devote a significant amount of time and energy to their skills classes. Further, as law schools begin to consider how to reform their curricula in accordance with the Carnegie report, they need to consider the importance of skills classes to their students’ overall learning and success.

We should also consider the needs and desires of our own students. In the 2008 Law School Survey of Student Engagement, current law students voiced concern over not having enough skills training prior to practicing law.\textsuperscript{155} For example, more than a third of all students (thirty-seven percent) wanted more opportunities to do practice-based legal writing during their studies.\textsuperscript{156} Only one in three students agreed that their writing assignments in law school help them learn by providing an opportunity to work through analytical concepts and ideas.\textsuperscript{157} Finally, almost half of the law students surveyed felt that “their legal education [did] not contribute substantially

\textsuperscript{153} See supra note 13 and accompanying text.
\textsuperscript{154} See supra note 15 and accompanying text.
\textsuperscript{155} See LAW SCHOOL SURVEY OF STUDENT ENGAGEMENT, STUDENT ENGAGEMENT IN LAW SCHOOL: PREPARING 21ST CENTURY LAWYERS 12 (2008), available at http://lssse.iub.edu/2008_Annual_Report/pdf/4u5h7e9/LSSSE_2008_Annual_Report.pdf. Consider the following quote that illustrates the importance of skills classes:
Various voices have been calling for such an expansion of educational goals in recent years. More attention to cultivating legal professionalism and the enhancement of legal skills to ensure a more efficient transition from school to practice are outcomes that need new attention within this expanded awareness of the educational mission of the legal academy.

\textsuperscript{156} Id. at 4.
\textsuperscript{157} Id.
to their ability to apply legal writing skills in real-world situations."\textsuperscript{158}

There is no doubt that legal educators have the difficult task of preparing students for the practice of law. Graduating law students should be prepared to serve their clients in terms of both the substantive law and the application of the law in practical settings. Legal educators are obligated to help students acquire these core foundational skills: written and oral communication, research, critical and analytical thinking, and cooperation with colleagues.\textsuperscript{159}

As legal education evolves, I envision a law school curriculum that values and incorporates professional skills with doctrine and a curriculum that stresses competence over performance. The law school curriculum as a whole should emphasize knowledge accrued over time versus knowledge accrued quickly for an exam—and then forgotten. As law professors, our mission is to equip the next generation of lawyers with the tools they need to practice law competently and professionally. If we are truly willing to undertake this mission then we need to commit to integrating skills and doctrine more fully. This type of mastery goal structure (versus the current performance goal structure of legal education) would prepare our students far better to be lawyers. In addition, legal educators should strive to use teaching methodologies that incorporate problem-based learning, cooperative learning, and right-brain learning; this type of teaching will enhance our students' success in all of their law school classes. And it will prepare our students more effectively to serve their clients and to face the challenges inherent in the practice of law.

\textsuperscript{158} Id.
\textsuperscript{159} Id.