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Leveraging Noncognitive Skills to Foster Bar Exam Success: An Analysis of the Efficacy of the Bar Passage Program at FIU Law

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LEVERAGING NONCOGNITIVE SKILLS TO FOSTER BAR EXAM SUCCESS: AN ANALYSIS OF THE EFFICACY OF THE BAR PASSAGE PROGRAM AT FIU LAW

*Raul Ruiz**

Abstract

With falling bar exam passage rates, many law schools have implemented bar exam preparation programs but are still struggling to improve bar exam passage rates. The increase in law school matriculants with LSAT scores below 150 had a statistically significant negative correlation with national mean MBE scores, and with the new ABA standard 316 mandating a 75% bar passage rate, law schools are facing mounting pressure to ensure that their graduates are ready and able to pass their bar examination expeditiously or risk losing ABA accreditation.

Law schools have been frustrated by the lack of results with their internal bar exam preparation programs. They often struggle to identify why their students continue to fail the bar exam. Not much has been written about the theory, design, implementation, and evaluation of an effective law school bar exam preparation program. This paper will discuss each of those areas with the goal of helping law schools achieve an important milestone: increasing bar passage rates for their students and maintaining ABA accreditation.

This paper will discuss what has caused a decrease in bar exam scores nationwide and how the bar preparation program at the FIU College of Law has counteracted declining pass rates. The focus of the bar prep program at FIU will be discussed in detail, so other law schools may utilize those same concepts.

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I. INTRODUCTION

American law schools are facing a bar exam passage challenge. Declining passage rates since 2011 have led many law schools to implement or improve academic support and bar preparation programs in their law schools with the goal of improving bar passage rates. Combined with the ABA's recent revision to Standard 316 requiring 75% bar passage rates for students within two years of graduation to maintain accreditation,¹ the pressure to help our students succeed in the final step of becoming licensed attorneys has never been higher.

Many law schools run internal bar exam preparation programs suboptimally and can do more to help their students pass their bar exam on their first attempt. Too often, schools focus solely on reteaching doctrine or test-taking gimmicks to students in final semester bar exam preparation courses. They can hardly be blamed as there is a dearth of useful information on how best to implement an effective law school bar exam preparation program. Apart from the decision to focus on reteaching doctrine in a bar preparation course, other design questions exist that must be addressed, including, for example, whether to make the program required for all students, whether commercial bar exam preparation vendors or doctrinal faculty should teach the course, and whether the law school should consider "teaching to the bar." Too often, though, little thought is given to the question of what *skills* students need to pass a bar exam apart from knowledge of the relevant black letter law, and how can an effective law school bar exam preparation program develop and reinforce those skills.

In January 2015, Florida International University College of Law ("FIU College of Law") appointed me Director of Bar Exam Preparation. My goal in modernizing the program was simple: exceed the Florida average bar exam passage rate and remain competitive with other schools in the state in our same tier. The students that participated in the program in just the first semester of its creation had the FIU College of Law achieve the highest bar exam passage rate in Florida for the July 2015 bar examination.² These were students that had not yet participated fully in our developing 1L- and 2L academic support program. What we had done with these students in just three months seems to have worked, but I could not rule out that this was simply a stroke of luck. Subsequent results would prove that the ideology of effective law school bar

¹ ABA Standards and Rules of Procedure for Approval of Law Schools, Standard 316 (2019).

² The Florida Board of Bar Examiners, *July 2015 General Bar Examination Overall Method* (Sept. 21, 2015), https://www.floridabarexam.org/_85257bfe0055eb2c.nsf/52286ae9ad5d845185257c07005c3fe1/ecae5e5b478cbdfb85257ec8004e2917.

preparation course design was working, and our students secured many impressive bar results on the Florida bar exam. It is important to share my ideology of effective bar exam preparation with other law schools so that they may help improve their own bar passage rates.

This article will discuss the theory guiding the design of an effective law school bar exam preparation program, how that design was implemented at the FIU College of Law starting with the July 2015 test-takers, and how I evaluated the effectiveness of the program to determine whether the program made a difference to those students whose predictors suggested that bar passage would be a challenge. This article is based both on best practices from academic literature on non-cognitive factors that have been incorporated into the FIU College of Law bar exam preparation program's design as well as the real-world lessons learned from running a law school bar exam preparation program.

II. WHAT IS CAUSING LOW BAR PASSAGE RATES?

This is a difficult question that will not be answered with any certainty in this article. Instead, we will explore various studies that have attempted to identify key predictors of bar exam success and explore other factors that may be contributing to the phenomenon with the goal of determining whether law school bar exam preparation programs can make a difference in stemming the tide of low bar passage rates.

Since 2011, the percentage of law graduates that successfully passed a bar exam on their first attempt has been on a steady decline. The July 2018 bar exam administration saw the lowest average scaled MBE score since 1984.³ The February 2018 exam saw the lowest average scaled MBE score in its entire history.⁴ The February 2019 and July 2019 MBE scores increased over their respective 2018 numbers, but are still hovering around their 2017 numbers.⁵ Despite this, there is hope that the 2019 MBE averages are signaling a turnaround in bar passage rates, and recent data support the theory that we are on the cusp of a turnaround for bar exam passage rates.

It was the July 2014 bar exam that first indicated an accelerated declining trend. In a memorandum to law school deans, National Conference of Bar Examiners ("NCBE") President Erica Moeser wrote that there were no

³ *July 2018 Average MBE Scores Decrease*, NAT'L CONF. OF BAR EXAMINERS (Sept. 14, 2018), <http://www.ncbex.org/news/july-2018-average-mbe-scores-decrease>; Karen Sloan, *Multistate Bar Exam Scores Sink to 34-Year Low, Pass Rates Sag* (Sept. 17, 2018), <https://www.law.com/2018/09/17/multistate-bar-exam-scores-sink-to-34-year-low-pass-rates-sag>.

⁴ Derek T. Muller, *February 2018 MBE Bar Scores Collapse to All-Time Record Low in Test History*, EXCESS OF DEMOCRACY (Apr. 19, 2018), <https://excessofdemocracy.com/blog/2018/4/february-2018-mbe-bar-scores-collapse-to-all-time-record-low-in-test-history>.

⁵ See *infra* note 8.

irregularities in the grading of that exam and that the exam takers were simply “less able than the group that sat in July 2013.”⁶ While many dispute Ms. Moeser’s assertions as to the cause of the decline of the mean MBE scaled score on the July 2014, including suggestions that the crash of the Examsoft system caused bar takers much consternation the day before their MBE,⁷ the fact remains that scores have continued to drop below their historical norms since that fateful bar exam.

Figure 1 shows the mean MBE scaled scores for the February and July bar exams since 2008, as well as the yearly total. While there were minor fluctuations in the mean, a steady trend downward began after 2013. The decline in mean MBE scaled scores has corresponded to a decline in passage rates. Figure 2 shows the passage rates since 2008 and depicts both the first-time national bar exam taker passing rate as well as that of Florida. Both show similar patterns, and the trend line for the national passing rate slopes downward.

⁶ Memorandum from Erica Moeser, President, Nat’l Conf. of B. Examiners, to Law School Deans (Oct. 23, 2014), http://online.wsj.com/public/resources/documents/2014_1110_moesermemo.pdf

⁷ See Jerry Organ, *What Might Have Contributed to an Historic Year-Over-Year Decline In the MBE Mean Scaled Score?*, THE LEGAL WHITEBOARD (Nov. 11, 2014), <https://lawprofessors.typepad.com/legalwhiteboard/2014/11/what-might-have-contributed-to-an-historic-year-over-year-decline-in-the-mbe-mean-scaled-score.html>; Jerry Organ, *Further Thoughts on the July 2014 Bar Results -- A Response to Erica Moeser*, THE LEGAL WHITEBOARD (May 15, 2014), <https://lawprofessors.typepad.com/legalwhiteboard/2015/05/further-thoughts-on-the-july-2014-bar-results-a-response-to-erica-moeser.html>; David Lat, *The Biggest Bar Exam Disaster Ever? ExamSoft Makes Everyone’s Life Hard*, ABOVE THE LAW (July 29, 2014), <https://abovethelaw.com/2014/07/bar-exam-disaster-examsoft-makes-everyones-life-hard>.

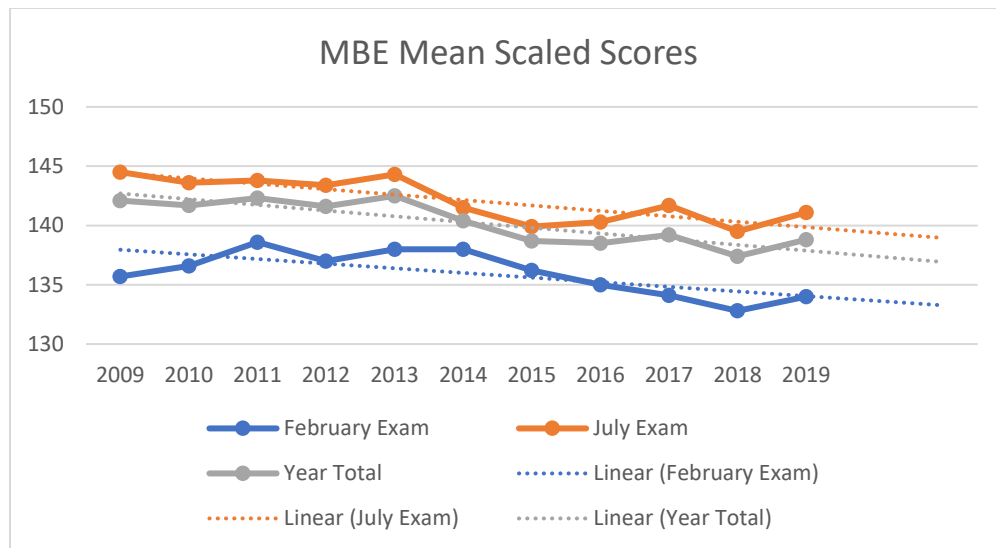


Figure 1 - MBE Mean Scaled Scores and Trendlines⁸

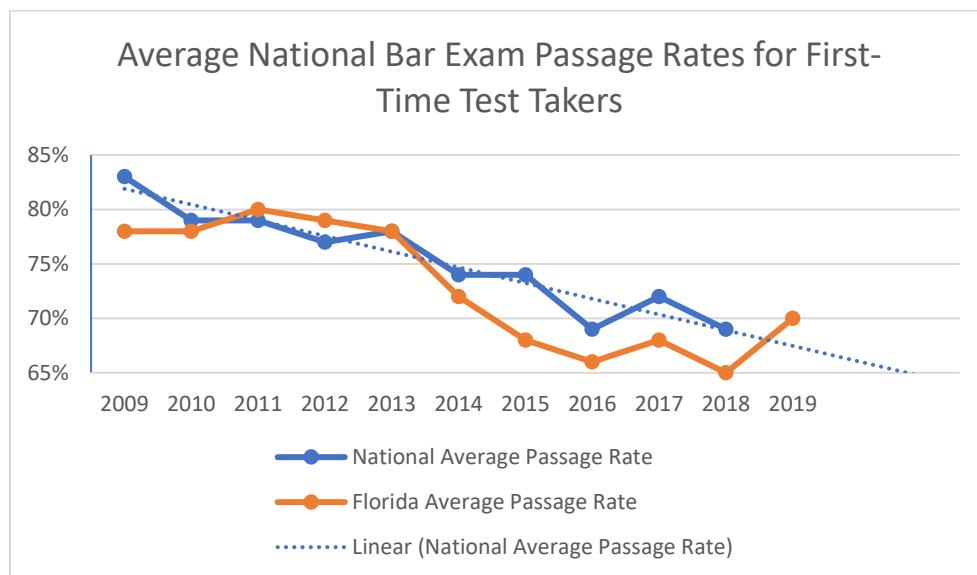


Figure 2 - Average National Bar Exam Passage Rates for First-Time Test Takers and Trendline⁹

⁸ Statistics, NAT'L CONF. OF BAR EXAMINERS (2018), <http://www.ncbex.org/statistics-and-research/statistics/>; Statistics Archives, NAT'L CONF. OF BAR EXAMINERS (2008-2019) <http://www.ncbex.org/statistics-and-research/statistics/statistics-archives/>; February 2019 MBE Statistics, The Bar Examiner (2019), <https://thebarexaminer.org/statistics>; July 2019 MBE Mean Score Rebounds, NAT'L CONF. OF BAR EXAMINERS (2019), <http://www.ncbex.org/news/july-2019-mbe> (last visited Nov. 7, 2019).

⁹ Statistics, *supra* note 8; Examination Results FAQ's and Statistics, FLORIDA BOARD OF BAR EXAMINERS (last visited Oct. 23, 2019),

It is difficult to say what caused the decline in average MBE scaled scores with any precision. The NCBE does not release raw data from which the public can draw conclusions, and state bar examiners have wildly differing policies regarding data disclosures to law schools. As a result, we do not have a broad set of data points to which we can correlate law student predictors to bar exam performance on a meaningful scale. The NCBE has their own opinions on the decline, and some researchers have nonetheless attempted to ascertain the root cause of the problem.

A. “It’s the LSAT!”, Said A Voice

The NCBE undertook a seemingly cursory review of the July 2014 MBE scores to determine what caused the decline in the national mean.¹⁰ They identified that the mean score on the MBE dropped by 1.7 points for applicants retaking the MBE, but that it dropped by 2.7 points for first-time takers of the MBE, a drop described as, “without precedent.”¹¹ The NCBE suggested strongly, without statistical backing,¹² that a decrease in both enrollment numbers and LSAT scores for the 25th percentile and below may have been the direct cause of the decrease in MBE mean scaled scores.¹³ The NCBE made only passing reference of law school performance being an essential factor in bar exam success – presumably because they lack the raw data to establish such a correlation statistically – and focused mainly on the LSAT.¹⁴ They did, however, cite several other factors that they believe are worth exploring, including the rise in experiential learning, removing core bar tested subjects from the required curriculum, outsourcing of law school bar preparation courses to commercial bar exam preparation vendors, and insufficient academic support for the bottom quartile of the law school class.¹⁵ This article will address three of these factors in a slightly different form: 1) the role of commercial bar exam preparation vendors;¹⁶ 2) whether the number of bar tested courses a student completes while in law school is of any importance,¹⁷ and; 3) how the bottom

<https://www.floridabarexam.org/web/website.nsf/52286AE9AD5D845185257C07005C3FE1/660E3F5B6C35DE2585257C0B006AA3F4>

¹⁰ Erica Moeser, *President’s Page*, THE BAR EXAMINER, Vol. 83, No. 4, 4 (Dec. 2014), <https://thebarexaminer.org/wp-content/uploads/PDFs/830414-presidentpage.pdf>.

¹¹ Moeser, *supra* note 10, at 4.

¹² No statistical analysis were disclosed to the public. It is very possible that the NCBE has completed a statistical analysis in-house.

¹³ Moeser, *supra* note 10, at 5-11.

¹⁴ One study conducted with data from Denver University students, however, was unable to replicate some of the conclusions made by the NCBE that a decline in LSAT scores was the primary culprit behind the decline in bar exam passage rates. See Scott Johns, *Testing the Testers: The National Conference of Bar Examiners’ LSAT Claim and a Roller Coaster Bar Exam Ride*, 35 MISS. C. L. REV. 436 (2017) (finding no statistically significant impact in the decline of LSAT scores on student performance on the bar exam at Denver University).

¹⁵ Moeser, *supra* note 10, at 6.

¹⁶ See *infra* Section IV.G.

¹⁷ See *infra* Section V.A.

quartile of students can be provided proper resources to maximize their odds of bar exam success. The fourth issue raised by the NCBE will not be discussed at length as one other study has already identified that the rise in experiential learning has had no correlation to bar exam outcomes.¹⁸

Shortly after the July 2014 MBE results were released, Jerry Organ computed that the results of the July 2014 MBE can not be explained *solely* by a decrease in LSAT scores for matriculated students.¹⁹ Organ suggests that although there was a decrease in LSAT scores for those taking the MBE, the actual decline exceeded the expected decline, and attributes one possible explanation of the unexpected decline to the “Examsoft debacle” during the July 2014 bar exam.²⁰ If Organ’s hypothesis is correct, we would expect that bar exam results following the July 2014 would have returned to their usual and customary ranges. That did not happen, and Organ explored the issue further to find that there had been a significant increase in the number of law school matriculants with lower LSAT scores as well as an increase in the number of law schools with median LSAT scores below 150.²¹

Data from the LSAC’s *Decisions Profile* report shows a bleak story going forward if one believes that LSAT is a critical predictor bar exam success. Figure 3 below shows the number of law students that matriculated for a particular year against their LSAT scores on the left vertical axis. The mean MBE score for this incoming class is plotted directly above their incoming LSAT score, and the value of the mean MBE score is plotted on the right vertical axis. For example, the incoming class of 2010 had 11,570 matriculants with an LSAT score between 155-159 (inclusive) and had a mean MBE score of 142.5 when they would have taken their bar exam in 2013. In other words, the line showing MBE scores is shifted left by 3 years of the actual year of examination.

Between 2010 and 2018, all matriculation numbers decreased for every LSAT score range except one: LSAT scores of less than 150. The chart shows visually that the mean MBE score mirrors the decline in matriculants with LSAT scores greater than or equal to 150 and is inversely related to the number of matriculants with LSAT scores below 150. The current national passage rates have certainly mirrored the expected trends in LSAT score matriculation profiles.

¹⁸ See Scott Johns, *A Statistical Exploration: Analyzing the Relationship (If Any) between Externship Participation and Bar Exam Scores*, 42 OKLA. CITY U. L. REV. 281, 303-04 (2018) (finding no statistically significant correlation between bar exam scores and participation in experiential learning courses at the University of Denver Sturm College of Law).

¹⁹ Jerry Organ, *What Might Have Contributed to an Historic Year-Over-Year Decline In the MBE Mean Scaled Score?*, THE LEGAL WHITEBOARD (Nov. 11, 2014), <https://lawprofessors.typepad.com/legalwhiteboard/2014/11/what-might-have-contributed-to-an-historic-year-over-year-decline-in-the-mbe-mean-scaled-score.html>.

²⁰ *Id.*; see Lat, *supra* note 7.

²¹ See Jerry Organ, *Changes in Composition of the LSAT Profiles of Matriculants and Law Schools Between 2010 and 2015*, THE LEGAL WHITEBOARD (Jan. 8, 2016), <https://lawprofessors.typepad.com/legalwhiteboard/2016/01/in-late-december-2014-i-posted-a-blog-analyzing-how-the-distribution-of-matriculants-across-lsat-categories-had-changed-si.html>.

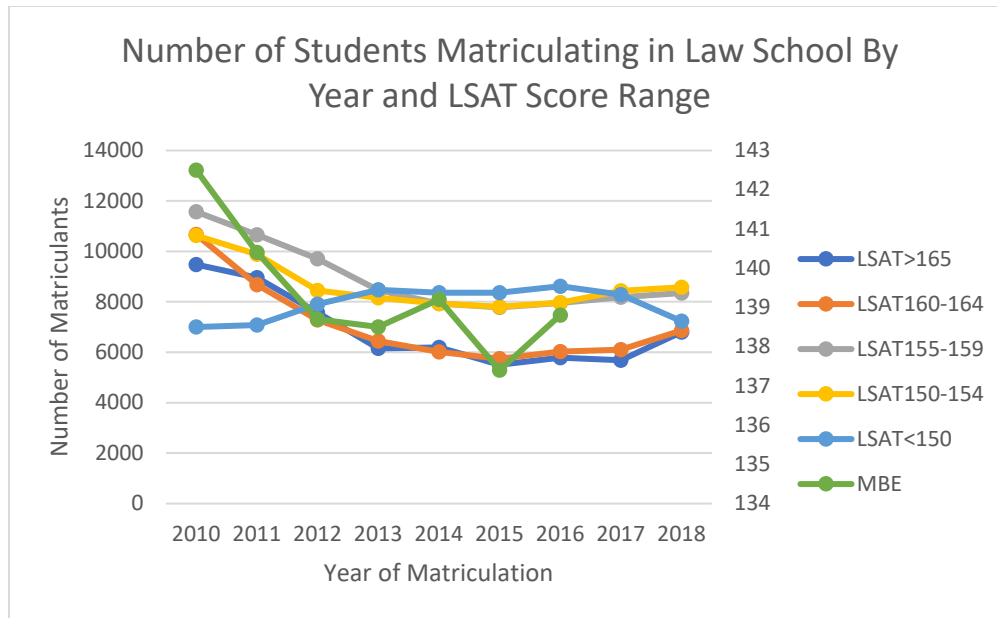


Figure 3 - Number of Students Matriculating in Law School by Year and LSAT Score Range²²

We can also compute the correlative relationship of the various LSAT profiles to MBE means to determine whether these correlations are statistically significant and determine their strengths. Table 1 below shows a correlation matrix between the LSAT score ranges and the mean MBE score for those profiles. All LSAT score ranges were statistically significant in their correlations at the $p \leq 0.05$ level.²³ Moreover, all LSAT score profiles show strong positive correlations to MBE mean scores except one: the number of matriculants with LSAT scores below 150. The number of matriculants with LSAT scores below 150 showed a strong *negative* correlation to national MBE mean scores. It is fair to say that the NCBE was correct on this issue: a decline in LSAT student profiles for students with LSAT scores above 150 and an increase in those with LSAT scores below 150 contributed to declining MBE scores and are affecting bar exam passage rates.²⁴

Table 1 - Correlation Matrix of LSAT Matriculation Profiles and MBE Mean

²² Data on file with the author.

²³ See *infra* notes 191-194.

²⁴ One article in the literature has found such correlation before, but by looking at the mean LSAT score over time. I know of no other article that has discovered the same. See Christian C. Day, *Law Schools Can Solve the "Bar Pass Problem" – "Do the Work!"*, 40 CAL. W. L. REV. 321, 328-30 (2004) (finding strong correlation between mean LSAT and first time bar exam passage rates).

Scores

	<i>LSAT>165</i>	<i>LSAT160-164</i>	<i>LSAT155-159</i>	<i>LSAT150-154</i>	<i>LSAT<150</i>
<i>MBE</i>					
Pearson's R	0.880	0.934	0.867	0.929	-0.834
p-value	0.009**	0.002**	0.012*	0.002**	0.02*

***p<=0.001, **p<=0.01, *p<=0.05

Fortunately, Figure 3 also shows that the trends in law school matriculants by score range is reversing. The 2016 law school class entering showed increased matriculation numbers across all LSAT ranges, including those with scores below 150. The classes entering in 2017 and 2018 showing continued increasing trends but with a notable *decline* in the matriculants with LSAT scores below 150. With this data, we can predict that MBE scores will improve for 2019, 2020, and 2021. We are already beginning to see the effects of this based on the 2019 MBE mean scores.

This data may lead one to conclude that LSAT can explain *all* or even *most* of our woes with law student bar passage rates. Other data, however, shows that LSAT is only part of the broader picture.

B. It's (Mostly) Law School Performance, Though

Many commentators have explored the relationship between multiple different factors, including LSAT, in predicting bar exam passage. The results have been fairly consistent among them.

The State Bar of California commissioned its own study to determine what was causing the decrease in bar passage rates in California.²⁵ Utilizing data provided by various law schools in California²⁶, the study revealed that over time, incoming law school credentials changed for the worse.²⁷ The study also found that several factors predicted the outcome of a student's attempt at the California bar exam, including LSAT score, undergraduate GPA, first-year law school GPA, and graduating law school GPA.²⁸ Of the predictors that were found to be statistically significant, the study determined that demographics and pre-admission credentials, namely LSAT

²⁵ THE STATE BAR OF CALIFORNIA, *Performance Changes on the California Bar Examination: Part 2* at 1, (Dec. 20, 2018), <http://www.calbar.ca.gov/Portals/0/documents/admissions/Examinations/Bar-Exam-Report-Final.pdf>.

²⁶ *Id.* at 8.

²⁷ *Id.* at 23-28.

²⁸ *Id.* at 29-37.

and undergraduate GPA, explained 23.8% of the variability of the total score on the California bar exam.²⁹ After including a student's performance in law school to their statistical analysis, the model predicted 52.3% of the variability of the total score, an increase of 28.5 percentage points.³⁰ As the study points out, law school performance has the most significant impact on the total score on the California bar exam.³¹ Curiously, the law school that the student attended improved the model by only 2 percentage points in explaining variability,³² suggesting that where students go to law school is a *de minimis* consideration.

Several other studies are in agreement with the State Bar of California's results showing a statistically significant correlation between LSAT, graduating law school GPA, and success on the bar exam.³³ These studies have found that while LSAT and other factors are relevant to predicting bar exam success, actual law school performance is by far the superior predictor of bar exam performance.³⁴

Unfortunately, this research may be affected by a gremlin familiar to every law student: the law school curve. Whether a law school has a median LSAT of 165 or 148, law school curves typically require that a certain number of A's, B's, and C's be distributed among students in varying proportions. This means that irrespective of shifts on LSAT profiles, law schools will typically always have the same GPA profiles.³⁵ The grading curve is wholly unrelated to incoming LSAT scores for the incoming class, but because LSAT correlates positively with 1L and graduating law school GPA, and 1L and graduating law school GPA correlate positively with bar exam passage odds, this presents potential issues with multicollinearity³⁶ that have

²⁹ *Id.* at 39.

³⁰ *Id.* at 39.

³¹ *Id.* at 40.

³² *Id.* at 39.

³³ See Amy N. Farley ET AL., *A Deeper Look at Bar Success: The Relationship Between Law Student Success, Academic Performance, and Student Characteristics*, 16 J. OF EMPIRICAL LEGAL STUD. 605 (2019) (finding graduating GPA to be statistically significant in a post-graduation bar success prediction model); Katherine A. Austin ET AL., *Will I Pass the Bar Exam?: Predicting Student Success Using LSAT Scores and Law School Performance*, 45 HOFSTRA L. REV. 753 (2017) (finding that 1L, graduating GPA, and LSAT are predictors of bar passage, with 1L and graduating GPA being the strongest); Scott Johns, *Empirical Reflections: A Statistical Evaluation of Bar Exam Program Interventions*, 54 U. LOUISVILLE L. REV. 35 (2016) (finding that LSAT and graduating GPA are predictors of bar passage, along with age, law student enrollment division, and participation in Legal Analysis Strategies and bar success courses); Nicholas L. Georgakopoulos, *Bar Passage: GPA and LSAT, Not Bar Reviews*, INDIANA UNIVERSITY ROBERT H. MCKINNEY SCHOOL OF LAW RESEARCH PAPER NO. 2013-30 (September 19, 2013), <https://ssrn.com/abstract=2308341> (finding that LSAT and graduating GPA are positively correlated with bar passage); Cf. Alexia Brunet Marks and Scott A. Moss, *What Predicts Law Student Success? A Longitudinal Study Correlating Law Student Applicant Data and Law School Outcomes*, 13 J. OF EMPIRICAL LEGAL STUD. 205 (2016) (finding that LSAT along with several other variables were statistically significant in predicting first-year law student GPA as well as law school graduating GPA).

³⁴ *Id.*

³⁵ This is true if the law school has not adjusted its grading curve.

³⁶ Multicollinearity is also referred to simply as collinearity. Multicollinearity occurs when one

not been thoroughly explored in the literature. In short, the odds of passing the bar exam are strongly related to law school GPA, and law school GPA is related to LSAT.

C. Adding Federal Civil Procedure Introduced a Problem: Cognitive Load

One topic that has rarely been discussed is the effect on cognitive load imposed on students beginning with the February 2015 bar exam when the NCBE added Federal Civil Procedure as a tested subject on the MBE.³⁷ This increased the difficulty of the MBE and the manner in which the NCBE prepared law schools and commercial bar exam course vendors for this additional subject both contributed to increasing the cognitive load on test-takers. This may have negatively impacted bar exam passage rates beyond what LSAT and graduating law school GPA profiles would otherwise predict.

Cognitive load theory deals with “the manner in which cognitive resources are focused and used during learning and problem-solving.”³⁸ It rests on the idea that our brains have vast long-term memory stores but limited working memory.³⁹ Working memory is where the learning process begins, and increasing cognitive load beyond the limits of our working memory hinders learning and performance.⁴⁰

Research has identified three types of cognitive load: intrinsic, extraneous, and germane. Intrinsic cognitive load refers to the inherent difficulty of a task.⁴¹ Extraneous cognitive load refers to the load generated by the teacher based on the manner in which the information is presented to a student.⁴² Germane cognitive load is the load imposed by the process of creating cognitive schemas, or stated more simply, converting our working memory into long-term memory.⁴³

variable in multiple variable statistical model can predict another variable in the model with a high degree of accuracy in a linear fashion. Multicollinearity presents a problem in statistical models because the presence of it skews the interpretation of the effect of the variables in the model in predicting the outcome, or dependent variable. For more information on multicollinearity and the problems it presents see DAMODAR GUJARATI, BASIC ECONOMETRICS 342-74 (4th ed. 2003).

³⁷ Erica Moeser, Letter to Law School Deans (Oct. 23, 2014) (“Civil Procedure will appear as the seventh content area on the Multistate Bar Examination beginning in February 2015.”).

³⁸ Paul Chandler and John Sweller, *Cognitive Load Theory and the Format of Instruction*, COGNITION AND INSTRUCTION 8(4), 293-332, 294 (1991),

<https://ro.uow.edu.au/cgi/viewcontent.cgi?article=1133&context=edupapers>.

³⁹ Fred Paas ET AL., *Cognitive Load Theory and Instructional Design: Recent Developments*, 38 EDUCATIONAL PSYCHOLOGIST 1, 1-2 (2003).

⁴⁰ Paas, *supra* note 39, at 1-2.

⁴¹ *Id.* at 1.

⁴² *Id.* at 2.

⁴³ *Id.* at 2.

The three types of cognitive load are additive in nature, and their sums cannot exceed a person's working memory resources.⁴⁴ Exceeding working memory resources means that learning will not occur.⁴⁵

If learning or performance is going to require a certain amount of cognitive load, the balance of the cognitive loads should be shifted towards germane load as much as is possible.⁴⁶ Ideally, the intrinsic load should be lowered as much as possible without sacrificing the objective of the learning, the extraneous load should be minimized by utilizing effective methods of instruction, and germane load should be increased in order to facilitate long-term memory storage by creating schemas.⁴⁷

This is not what happened when civil procedure was added to the MBE.

During the 2016 conference of the Association of Academic Support Educators at the City University of New York (CUNY) School of Law in Long Island City, New York, then Director of Testing Judith Gundersen was asked, “[w]hen adding Civil Procedure to the MBE, to what degree did the NCBE consider ‘cognitive load?’”⁴⁸ She indicated that “[c]ivil [p]rocedure tested equally as well as the other subjects.”⁴⁹

The addition of civil procedure indeed increased the cognitive load imposed on students studying for the bar exam in almost every conceivable manner. First, the NCBE increased the intrinsic cognitive load of preparing for the MBE by adding this subject. Federal civil procedure is not merely a subtopic of an existing subject, but rather an entirely new subject to be mastered. The subject itself is a challenging one and intrinsically difficult in its own right.⁵⁰

Despite this massive addition, the amount of time that students had to study for the exam after graduation did not change. Thus, the addition of civil procedure requires substantially more areas of law to master in the same amount of time as before. Moreover, during the actual taking of the exam, the cognitive load is increased as test-takers must now recall even more information than before. While civil procedure questions were not part of the equating process because of a lack of

⁴⁴ *Id.* at 2.

⁴⁵ *Id.* at 2.

⁴⁶ *Id.* at 2.

⁴⁷ *Id.* at 2.

⁴⁸ Louis Schulze, *Adding Civil Procedure to the Bar Exam: A Squandered Opportunity to Understand the Impact of Admitting Students with Lower Indicators*, PRAWFSBLAWG (June 3, 2016), <https://prawfsblawg.blogs.com/prawfsblawg/2016/06/adding-civil-procedure-to-the-bar-exam-a-squandered-opportunity-to-understand-the-impact-of-admittin.html>. The author of this article was also present for this question.

⁴⁹ *Id.* The answer was off point.

⁵⁰ At least one study has found that performance in Federal Civil Procedure was statistically significant in predicting bar exam passage even when that subject was not yet on the bar exam. The author of that research attributes that result to the difficult analytical nature of the subject. *Cf.* Austin, *supra* note 33 at 768-69.

prior data from which to derive an equating factor,⁵¹ the increased cognitive load may have adversely impacted the performance of test-takers on the questions that were used for equating purposes.⁵² The addition of civil procedure to the MBE increased the intrinsic cognitive load of studying for and performing on the MBE.

The NCBE also increased the extraneous cognitive load imposed on test-takers by initially providing only ten questions¹ on Federal Civil Procedure.⁵³ As will be discussed *infra*, this scant number of questions deprive test-takers of the benefits of the “testing effect” to aid their learning process, thereby increasing the extraneous cognitive load as students must use other, less efficient methods to master the material.

These ten sample questions also served as the basis from which law schools, professors, and bar preparation programs had to design their programs to assist students in mastering civil procedure.⁵⁴ One way by which extraneous cognitive load is increased is through suboptimal instruction. Commercial bar exam preparation companies and law school bar exam preparation programs can improve their instruction if they know a little about how exam questions are structured so as to model both their instruction and their self-created question content effectively. I believe that the lack of a substantial number of practice civil procedure questions affected the ability of bar exam preparation programs to model their practice materials efficiently and thus increased the extraneous cognitive load on students unnecessarily.

Lastly and unfortunately, the addition of civil procedure decreased the germane cognitive load as well. Recall that germane cognitive load is the load that should be increased, while extraneous and intrinsic should be decreased as much as practical. Germane cognitive load decreased because test-takers now have the same amount of time as the previous bar exam takers to create cognitive schemas on more material. As the intrinsic and extraneous cognitive loads increased, the amount of time dedicated to forming long-term memory has decreased, and thus germane cognitive load was fallen by the wayside.

Knowing of these increased cognitive loads, we can surmise how well civil procedure has fared on the bar exam. While we do not receive raw data on subject

⁵¹ Derek T. Mueller, *No, the MBE Was Not "Harder" Than Usual*, EXCESS OF DEMOCRACY (Sept. 28, 2015), <https://excessofdemocracy.com/blog/2015/9/no-the-mbe-was-not-harder-than-usual>.

There is no information yet as to whether this is still the case, although this author suspects that the NCBE has had sufficient time and data to add civil procedure questions to their equating sets.

⁵² For background on how statistical equating is utilized on the MBE, see Mark A. Albanese, *The Testing Column: Equating the MBE*, THE BAR EXAMINER Vol. 84, No. 3 (Sept. 2015), <https://thebarexaminer.org/wp-content/uploads/PDFs/BE-Sept2015-TheTestingColumn.pdf>.

⁵³ Marsha Griggs, *Building a Better Bar Exam*, 7 TEXAS A&M L. REV. 430-31 (2019); *MBE Civil Procedure Sample Test Questions*, NAT'L CONF. OF B. EXAMINERS (last visited Oct. 25, 2019), www.ncbex.org/dmsdocument/16. The sample civil procedure practice test questions are also on file with the author.

⁵⁴ Griggs, *supra* note 53, at 430-31.

performance on the MBE, we can utilize a proxy to gain insight into whether the effects of increased cognitive load are measurable in our students.

*Table 2 – National Performance by MBE Subject Per Year by Test-Takers Studying for the MBE Using a Particular Online MBE Practice System*⁵⁵

	Civ Pro	Con Law	Contracts	Crim Law	Evidence	Real Property	Torts
July 2015	46.9%	65.6%	59.7%	64.9%	64.4%	59.4%	64.6%
July 2016	52.1%	65.9%	59.6%	65.3%	65.0%	59.3%	64.7%
July 2017	53.2%	66.0%	60.5%	65.5%	64.8%	59.2%	65.0%
July 2018	53.6%	65.5%	59.6%	64.6%	64.8%	58.0%	65.0%
July 2019	55.3%	66.9%	60.6%	65.9%	65.8%	59.6%	66.1%
<i>Std. Devi- ation</i>	<i>3.19</i>	<i>0.55</i>	<i>0.50</i>	<i>0.51</i>	<i>0.52</i>	<i>0.63</i>	<i>0.60</i>

Table 2 above shows the national percentage of MBE questions answered correctly on an online MBE practice system and shown by bar exam administration.⁵⁶ Federal Civil Procedure is clearly the most deficient performing subject of the seven even after five July MBE administrations and has the highest variability.

Cognitive load theory tells us that performance across all subjects should decrease as a result of the addition of civil procedure if the intrinsic cognitive load was increased for the entire exam. We do not see that result in Table 2, but instead, we see fairly consistent results across all subjects except civil procedure.

There are several possible explanations for why we do not see a straightforward decline in overall performance. First, when students utilize the online system to practice for the MBE, they may be practicing singular subjects rather than mixing questions from different MBE subjects. In that case, we would not necessarily see the increase in intrinsic cognitive load associated with the context switching discussed previously.

⁵⁵ Data on file with the author.

⁵⁶ The online MBE practice platform utilizes licensed questions from the National Conference of Bar Examiners with self-created civil procedure questions. These self-created civil procedure questions eventually began to incorporate released civil procedure questions from the NCBE as they were released publicly. *See infra* note 61.

Moreover, the decreased performance seen only on civil procedure may be attributed more to an increase in extraneous cognitive load than intrinsic cognitive load. It is possible that by lacking the proper resources to generate an effective instruction program during bar exam preparation, students are suffering from an inability to create cognitive schemas for civil procedure.

Unfortunately, the only way to be sure about the performance of individual subjects on the MBE is for the NCBE to release such historical data to the public. Until then, we can only speculate as to the causes and effects of the addition of civil procedure to the bar exam in February 2015.

Was the cognitive load for civil procedure too much to handle for students when this arguably difficult subject was added? Is the subject just too difficult when tested alongside six others? Are doctrinal faculty doing a poor job of covering this subject?⁵⁷ Are bar review courses doing a similarly poor job covering this subject?⁵⁸ We may not have the answers to all of these questions yet, but one thing is sure: civil procedure is not testing “equally as well as the other subjects.”⁵⁹ There is also no evidence to suggest that poor performance on civil procedure compared to every other MBE subject can be attributed to lower LSAT credentials for law school matriculants as compared to all of the other MBE subjects. It is entirely plausible that the July 2014 “Examsoft debacle”⁶⁰ contributed to depressed MBE scores, and the addition of civil procedure was an additional factor of continued declines in those scores along with shifts in matriculant LSAT profiles.

Table 2 shows that the scores for civil procedure are increasing over time on an online practice platform, a sign that perhaps with more questions being released as practice materials, law schools, professors, and bar exam preparation companies are getting better at preparing students for the test by reducing extraneous cognitive load.⁶¹ This may suggest that as the NCBE releases more sample questions on the subject, law schools and commercial bar exam preparation companies are doing a better job at reducing the extraneous cognitive load and shifting that load to the more beneficial germane cognitive load.

D. Conclusion

What we see with this research is that while LSAT can be a predictor for first-time bar passage probability, its predictive power is somewhat limited. The addition of Federal Civil Procedure as a tested subject on the MBE may have had a deleterious effect on bar passage rates, but we cannot say that with any statistical

⁵⁷ Answer: no.

⁵⁸ Answer: maybe.

⁵⁹ Schulze, *supra* note 48.

⁶⁰ Organ, *supra* note 19.

⁶¹ The NCBE has since released additional civil procedure practice questions. They can be purchased via their website at <http://www.ncbex.org/study-aids/>.

certainty, at least not at this point in time. Time will tell how all of these variables interact for students, but for now, we must proceed with the data we do have.

That data suggests that the NCBE was correct that students taking bar exam beginning in February 2015 were “less able” than their predecessors. The data from California also shows that a student’s law school GPA is statistically far more critical than any other variable, irrespective of the law school they attended. Despite the potential correlative issues with LSAT and law school GPA mentioned previously, it is possible to design a law school bar exam preparation program that can make a student’s LSAT score irrelevant to computing bar passage odds. Not every law student can have a 4.0 GPA or a 2.8, for that matter.

An effective law school bar exam preparation program can make a difference for students near the bottom of the class and with presumably correlated low LSAT scores by facilitating the development of non-cognitive skills in our students. The next sections address the theory, implementation, and evaluation of an effective law school bar exam preparation program: the secret sauce.

III. THEORY OF DESIGN OF A LAW SCHOOL BAR EXAM PREPARATION PROGRAM

As discussed above, research shows that LSAT and law school GPA are predictors of bar exam passage odds. Because it is often the bottom 20-40% of the class that fails the bar exam on their first attempt, a law school bar exam preparation program must provide those students at-risk of failing the bar exam with additional resources, meaning that we must target those students in some way and at some point in their course of study. This will provide the most utility for students when allocating expert yet scarce resources and lead to a noticeable jump in overall bar passage rates for a law school.

Students with low grades can often be perceived as “being lazy or lacking motivation.”⁶² It is easy to assume that if “students would just work harder and not give up, they would do better in school.”⁶³ But research suggests this may not be the case.⁶⁴ What is actually happening is that students with poor grades typically have underdeveloped skills, particularly noncognitive skills⁶⁵:

[Research into] noncognitive factors sheds a different light on the phenomenon of students who exhibit poor academic behaviors. Perhaps what looks like a lack of caring or persevering

⁶² Camille A. Farrington ET AL., *Teaching Adolescents To Become Learners, The Role of Noncognitive Factors in Shaping School Performance: A Critical Literature Review*, THE UNIVERSITY OF CHICAGO CONSORTIUM ON CHICAGO SCHOOL RESEARCH, 73 (2012), https://consortium.uchicago.edu/sites/default/files/2018-10/Noncognitive%20Report_0.pdf.

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ The term “noncognitive skills” and “noncognitive factors” can be used interchangeably.

could be a student indicating that she is convinced that she cannot do the work. Another student may not have effective strategies for engaging in classroom tasks. Students who cannot see the relevance of a class may have difficulty finding a way to engage in the work. Others may withdraw from participating in classroom activities because they are afraid of public failure or feel ostracized by their peers. In our own research, we find that the vast majority of students want to succeed in school, but many obstacles get in the way of their putting forth effort.⁶⁶

The theory of design of a law school bar exam preparation program must necessarily revolve around the idea that students with underdeveloped skills must be targeted to provide them additional resources to develop the skills necessary to succeed on the bar exam, namely knowledge of the law, cognitive skills, and noncognitive skills.⁶⁷ These are the ideals upon which the bar exam preparation program at the FIU College of Law has been designed and will be explored below.

A. Focus on Skills, Sprinkle Some Doctrine

There are three skills that are critical for bar exam passage: knowledge of the law, cognitive skills, and noncognitive skills. Noncognitive skills play a crucial role in helping the bottom 20-40% of the class improve their odds of bar exam passage on their first attempt and are the most important skills we can impart on those students to raise their odds of first attempt bar exam passage. Before we explore noncognitive factors in detail, however, let us explore these other skills that are necessary for successful bar passage.

It is axiomatic that without a knowledge of the law to be applied to the bar exam, a student has a very little chance of success on the exam. Students must have a working knowledge of the law that is tested on their bar exam. It is, therefore, necessary that any law school bar exam preparation program include a limited review and, when necessary, a reteaching of doctrinal law as it is tested on the bar exam. Doing so must take into consideration the amount of cognitive load imposed on a student so as to maximize learning.⁶⁸ In other words, we should not try to teach everything that could potentially be tested on the bar exam, but instead, focus on small areas of a topic to use as a common core of knowledge for the development of cognitive and noncognitive skills.

⁶⁶ *Id.*

⁶⁷ These are the same skills that are necessary for success in law school as determined by law school GPA. Thus, the development of these skills are useful in creating an effective academic support program as well.

⁶⁸ See *supra* Part II, Section C. for discussion on cognitive load theory.

Covering some doctrinal law has several benefits. First, reviewing doctrinal law that all students have been exposed to, such as law taught in the first year of study, places all students in the class on equal footing. Irrespective of the grade earned in a doctrinal course that is tested on the bar exam, all students will be exposed to the same legal kernels and will have the same opportunity to master a limited subset of law for a particular subject. As an added benefit, the law reviewed in the course will serve to correct any misunderstanding that a student developed about the state of the law since they first reviewed it.

Second, reviewing the doctrinal law will expose students to the law that is tested on the bar exam as opposed to the law that may have been taught differently to the student. Some doctrinal faculty teach law that is objectively proper but substantively different from what the bar examiners believe to be the current state of the law. For all students at this point in time, the only law that stands between them and a license to practice law is the state of the law the way the bar examiners perceive it to exist.

Lastly, in introducing new law that may have never been covered in a doctrinal course,⁶⁹ students may take more interest in the law school bar exam preparation course as they see benefits beyond mere review. This is particularly true when teaching state-specific law for a bar exam as students see significant utility to the rules they are learning. Learning these state-specific rules may provide students with meaning to the course beyond mere bar exam preparation by generating interest in the knowledge they see as practical in their careers.

Despite these benefits, reviewing or reteaching of doctrine should have the smallest amount of time dedicated to the task in a bar preparation program because the focus must be on skill development. Knowledge of the law is a necessary but insufficient condition for first-time bar exam passage.⁷⁰ The ability to apply the law to a set of facts is the cornerstone of the bar exam.⁷¹ Students will have time to learn *all* the law they need to learn from their commercial bar exam preparation company.

The ideal method by which a law school bar exam preparation program can minimize the amount of class time spent on doctrinal law is by utilizing a flipped classroom model. A flipped classroom has students watch a substantive lecture as homework and then report to class to practice or refine the material that was to be

⁶⁹ Some doctrinal courses may never cover certain tested areas of a subject due to time limitations. For example, the MBE civil procedure subject matter outline indicates that jury trials, verdicts, judgments, and appellate review are tested areas, but these areas are rarely covered in a first-year federal civil procedure course. See *2020 MBE Subject Matter Outline*, NAT'L CONF. OF B. EXAMINERS (last visited Nov. 4 2019),

<http://www.ncbex.org/pdfviewer/?file=%2Fdmsdocument%2F226>.

⁷⁰ See *Multistate Bar Examination*, NAT'L CONF. OF B. EXAMINERS (last visited Oct. 23, 2019), <http://www.ncbex.org/exams/mbe/> ("The purpose of the MBE is to assess the extent to which an examinee can apply fundamental legal principles and legal reasoning to analyze given fact patterns."). The Multistate Bar Examination is used in every jurisdiction in the United States with the exception of Louisiana and Puerto Rico.

⁷¹ See *id.*

learned.⁷² Flipped classrooms have extensive benefits when it comes to academic performance.⁷³ The challenge, however, is finding the appropriate material to present to students as homework in a flipped bar exam preparation classroom.

One decision that is often made in designing a law school bar exam preparation program is that the program utilizes a doctrinal faculty member or a commercial bar exam preparation company to teach the students the substantive law covered on the bar exam. This is a mistake. As mentioned previously and as will be discussed shortly, reviewing or reteaching substantive law is not as crucial as developing cognitive and noncognitive skills. We need only cover a slice of doctrinal law to emphasize and develop cognitive and noncognitive skills. In my experience, commercial bar preparation vendors and doctrinal faculty that do not specialize in bar exam preparation often focus on emphasizing doctrinal law. This route focuses more on memorization of the black letter rules for law school bar examination preparation. To espouse this system is to do a disservice to our students. The top students in the class will, of course, understand the concepts being taught, but the bottom of the class will struggle to perform because of underdeveloped cognitive and noncognitive skills. Law schools must be very wary of allowing law school bar review programs to be run as final semester summaries of the prior three years of law school.

Law school bar exam preparation programs serve their students well if time is spent focusing on cognitive and noncognitive skills development instead of reteaching doctrine as its primary goal. Between these two, it is the development of noncognitive skills that makes a more significant difference for the students most at risk of failing their bar exam since it is these same missing skills that are often the cause of underperforming in law school.

Cognitive skills are skills such as thinking, reasoning, reading, learning, attention span, and memory.⁷⁴ For law students, those skills also include issue identification and legal analysis as part of the craft they are learning. A law school bar exam preparation program must help students develop each of these skills using the common doctrinal law explored previously. Critical reading skills, analysis, and issue identification are vital to answering multiple-choice questions, essays, and performance tests both in law school and on the bar exam. Unfortunately, students

⁷² For background information on the flipped classroom model, see generally Jonathan Bergmann & Aaron Sams, *FLIP YOUR CLASSROOM: REACHING EVERY STUDENT IN EVERY CLASS EVERY DAY* 4-6 (2012).

⁷³ See Laura Phillips & Mark Phillips, *Improved Student Outcomes in a Flipped Statistics Course*, 6 ADMINISTRATIVE ISSUES JOURNAL 88 (2016) (finding that students earned higher final exam grades in classrooms using the flipped model compared to classroom using the traditional model).

⁷⁴ See Min Liu, *Enhancing Learners' Cognitive Skills Through Multimedia Design*, 11 INTERACTIVE LEARNING ENVIRONMENTS 23, 23-4 (2010), <https://doi.org/10.1076/ilee.11.1.23.13686>.

entering law school appear to have underdeveloped cognitive skills as compared to their predecessors.⁷⁵

These are the same skills that should have been developed throughout a student's law school career in every class they would have taken. Critical reading, learning law, analyzing, and applying the law to new fact patterns is the crux of any law school classroom, so cognitive skills should be somewhat developed in a law school student by the time they reach their final year of study. Unfortunately, this is not always the case, and law school academic support programs should also be targeting cognitive skills development for academically underperforming students in the first two years of a student's legal studies. Similarly, a law school bar exam preparation program must continue to develop cognitive skills in students using various and effective pedagogical techniques, such as active learning, among others.

Noncognitive skills, on the other hand, are certain "sets of behaviors, skills, attitudes, and strategies that are crucial to academic performance..."⁷⁶ The measurement of a student's noncognitive skills cannot be shown solely by test scores, but rather by including a student's grades in that assessment.⁷⁷ Poor grades are a reliable indicator that a student has underdeveloped noncognitive skills.⁷⁸ Thus, if we want to improve the bar exam first-time outcomes of students with poor law school grades, devoting time to improving noncognitive factors can yield significant benefits.

Ideally, the development of noncognitive factors should begin well before a student enters a law school bar exam preparation program. This is particularly true for students with identified predictors that place them at risk of failing their bar exam on the first attempt, as discussed previously in this Part and will be explored utilizing statistical methods in Part V.

While both cognitive and noncognitive skills play an especially crucial role in passing the bar exam, research has shown that improving noncognitive factors in students yield "high payoffs" for academic performance and can reduce racial, ethnic, and gender gaps in performance.⁷⁹ I have discovered through the development of the law school bar exam preparation programs that developing and reinforcing *noncognitive* skills play a more critical role in sharpening the skills students need to pass their bar exam on their first attempt than focusing solely on developing or reinforcing cognitive skills. This is not to say that developing cognitive skills should play no role in such a program – on the contrary – but emphasizing noncognitive skills yields the most significant return on investment

⁷⁵ See generally Rebecca Flanagan, *The Kids Aren't Alright: Rethinking the Law Student Skills Deficit*, 2015 BYU EDUC. & L. J. 135 (2015).

⁷⁶ Farrington, *supra* note 62, at 2.

⁷⁷ *Id.* at 4.

⁷⁸ *Id.* at 73.

⁷⁹ *Id.* at 5.

for students whose predictors show a substantial likelihood of an unfavorable result on the bar exam. Research into noncognitive skills has shown the same result in different contexts as well.⁸⁰

Thus, the overall theory of design for a law school bar exam preparation program revolves around the proper and weighted development and reinforcement of cognitive and noncognitive skills as they relate to studying for the bar exam while reviewing, reteaching, and introducing some doctrinal law to our students as a means to that end..

B. Exploring Noncognitive Factors in More Detail

The University of Chicago Consortium on School Education has produced an extensive review of the literature surrounding the utilization of noncognitive factors to produce high academic performers.⁸¹ Their work provides an extensive review of the field and its research and is the basis for the discussion that follows as well as a cornerstone for the theory underlying the development and reinforcement of noncognitive skills in my bar exam preparation program at the FIU College of Law.

Their research has classified previously identified noncognitive factors into 5 broader categories that have proven to be effective in improving academic performance: 1) academic behaviors; 2) academic perseverance; 3) academic mindsets; 4) social skills, and; 5) learning psychology and strategies.⁸²

I will discuss the broader noncognitive factors categories that I attempt to develop in my program. I will not discuss the social skills noncognitive factor as the research involving social skills was primarily done with elementary school students. However, the other noncognitive factors are relevant, meaningful, and can be developed to some degree in a law school bar exam preparation program.

The primary goal of developing noncognitive factors is to improve academic performance.⁸³ To do so, we must first understand how each of these noncognitive factors plays a role in that goal and the synergies between them. Figure 4 below shows the relationship among the different noncognitive factors and interplay between them in improving academic performance.

⁸⁰ *Id.* at 73.

⁸¹ *See id.*

⁸² *Id.* at 8-11.

⁸³ *Id.* at 11-12.

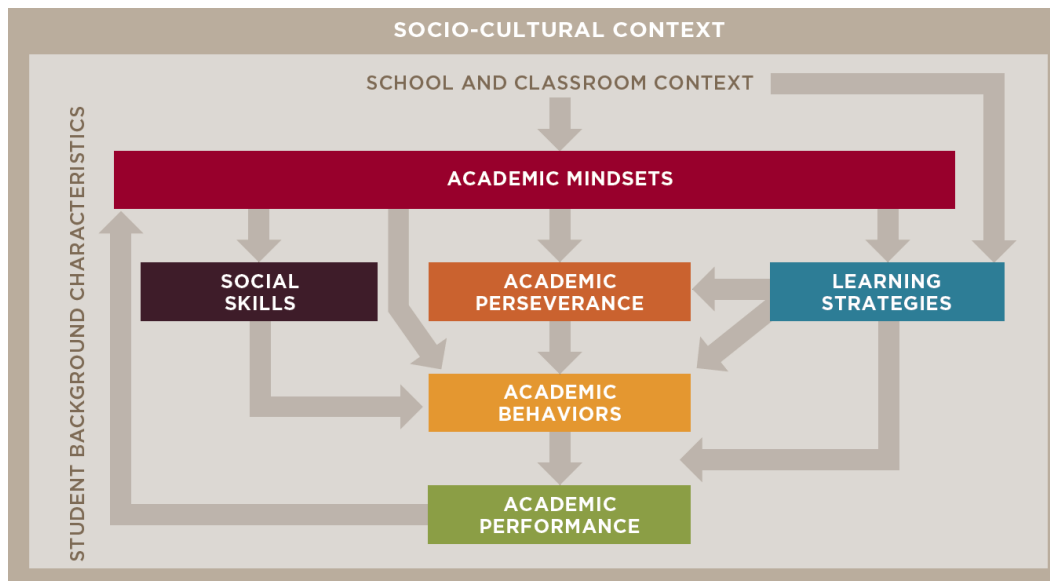


Figure 4 - "A Hypothesized Model of How Five Noncognitive Factors Affect Academic Performance within a Classroom"⁸⁴

The path to improved academic performance begins with academic mindsets.⁸⁵ Academic mindsets affect the subsequent development of social skills, academic perseverance, and learning strategies.⁸⁶ Learning strategies also help develop academic perseverance.⁸⁷ Each of those, including academic mindsets, helps develop academic behaviors.⁸⁸ Finally, academic behaviors and learning strategies help improve academic performance directly.⁸⁹

It is recommended that in order to develop noncognitive skills, teachers should first begin by focusing on academic mindsets and learning theory.⁹⁰ This will make it easier to change academic perseverance and then academic behaviors.⁹¹

1. Academic Behaviors

Academic behaviors generally refer to the quality of being a “good student.”⁹² They are “the medium through which all other cognitive and noncognitive factors are expressed.”⁹³ These behaviors include class attendance, organization, class

⁸⁴ *Id.* at 12. Reprinted with permission of the author.

⁸⁵ *Id.* at 12.

⁸⁶ *Id.* at 12.

⁸⁷ *Id.* at 12.

⁸⁸ *Id.* at 12.

⁸⁹ *Id.* at 12.

⁹⁰ *Id.* at 73.

⁹¹ *Id.* at 73.

⁹² *Id.* at 8.

⁹³ *Id.* at 17.

participation, completion of homework, and studying.⁹⁴ It is the most significant noncognitive factor for student success, and all of the factors discussed previously should be developed with the goal of improving academic behaviors.⁹⁵ Improving academic behavior, when coupled with learning strategies, leads to markedly improved academic performance.⁹⁶ This is because “[v]irtually all other factors that affect school performance – including content knowledge, academic skills, student background characteristics, and the full range of noncognitive factors – exercise their effect through students’ academic behaviors.”⁹⁷

Because academic behaviors provide a direct link to academic performance, the goal of a law school bar exam preparation program must be to develop these academic behaviors as they relate to bar exam preparation by developing the antecedent noncognitive skills and promoting positive academic behaviors in the classroom or bar exam preparation program. Unfortunately, there is a surprising dearth of research into how best to develop this noncognitive skill directly in the classroom.⁹⁸ Instead, research has focused on the eventual benefits of positive academic behaviors rather than direct development of that behavior.⁹⁹ Most of the methods by which teachers improve academic behaviors comes directly from “local practice wisdom.”¹⁰⁰ All hope is not lost, however. Some research has shown that academic behaviors such as course attendance and assignment completion are affected by close monitoring of students and timely interventions when a student departs from expectations.¹⁰¹

Development of academic behaviors is best encouraged through the development of the other noncognitive factors, but “local practice wisdom” has undoubtedly informed some of the policies I utilize in my bar exam preparation program to encourage active learning, class attendance, organization, class participation, completion of homework, and studying. These will be discussed in more detail in Section IV of this article.

2. Academic Mindsets

Academic mindsets refer to the “psycho-social attitudes or beliefs one has about oneself in relation to academic work.”¹⁰² In other words, it consists of “beliefs, attitudes, or ways of perceiving oneself in relation to learning and intellectual work

⁹⁴ *Id.* at 8.

⁹⁵ *Id.* at 8.

⁹⁶ *Id.* at 8.

⁹⁷ *Id.* at 19.

⁹⁸ *Id.* at 15-17.

⁹⁹ *Id.* at 15-17.

¹⁰⁰ *Id.* at 17.

¹⁰¹ *Id.* at 18.

¹⁰² *Id.* at 9.

that support academic performance.”¹⁰³ This is the first cognitive skill that should be developed.¹⁰⁴ One study at the college level has found that academic mindsets have the most substantial impact on academic performance.¹⁰⁵

Additional research indicates that:

Positive academic mindsets motivate students to persist at schoolwork (i.e., they give rise to academic perseverance), which manifests itself through better academic behaviors, which lead to improved performance. There is also a reciprocal relationship among mindsets, perseverance, behaviors, and performance. Strong academic performance “validates” positive mindsets, increases perseverance, and reinforces strong academic behaviors. Note that this reciprocal, self-perpetuating system also works in a negative loop. Negative mindsets stifle perseverance and undermine academic behaviors, which results in poor academic performance. Poor performance in turn reinforces negative mindsets, perpetuating a self-defeating cycle.¹⁰⁶

There are four mindsets that are key to fostering academic performance: 1) a feeling of belonging in an academic community; 2) a belief that effort promotes growth in skills and competence; 3) a belief that success lies at the end of their efforts, and 4) a belief that a student’s work possesses value for them.¹⁰⁷ Importantly, academic mindsets are malleable.¹⁰⁸ Each of these mindsets can be developed in a law school bar exam preparation program, and my program focuses on developing “growth mindsets” in participating students.

A growth mindset encompasses many of these identified mindsets. The leading authority on the benefits of a growth mindset is Carol Dweck. Her book titled *Mindset: The New Psychology of Success* explores the two general mindsets that dominate our lives: fixed and growth mindsets. It is the growth mindset that leads to increased academic performance and should be the goal of our efforts.

Dweck describes the fixed mindset as:

Believing that your qualities are carved in stone – the fixed mindset – creates an urgency to prove yourself over and over. If you have only a

¹⁰³ *Id.* at 28.

¹⁰⁴ *Id.* at 73.

¹⁰⁵ See Susan P. Farrugia ET AL., *Noncognitive Factors and College Student Success*, 20 J. OF COLLEGE STUDENT RETENTION: RESEARCH, THEORY & PRACTICE 308, 319-23 (2016) (finding that academic mindset was the strongest predictor of academic performance, followed by academic perseverance).

¹⁰⁶ *Id.* at 9.

¹⁰⁷ *Id.* at 28-9.

¹⁰⁸ *Id.* at 31.

certain amount of intelligence, a certain personality, and a certain moral character – well, then you’d better that prove you have a healthy dose of them. It simply wouldn’t do to look or feel deficient in these most basic characteristics.¹⁰⁹

Fixed mindsets believe that one’s qualities are “carved in stone”¹¹⁰ and feel threatened by the success of others.¹¹¹

On the other hand, a growth mindset praises the effort while a fixed mindset praises intelligence.¹¹² Dweck writes that:

“... the hand you’re dealt is just the starting point for development. This *growth* mindset is based on the belief that your basic qualities are things you can cultivate through your efforts, your strategies, and help from others. Although people may differ in every which way – in their initial talents and aptitudes, interests, or temperaments – everyone can change and grow through application and experience.”¹¹³

When faced with a hypothetical grade of “C+” on a midterm exam, students with fixed mindsets identified the following responses: “I’d feel like a reject,” “I’m a total failure,” “I’m an idiot,” and “I’m a loser.”¹¹⁴ Students with a growth mindset responded quite simply, “... I need to work harder...”¹¹⁵ Conversely, students with a growth mindset answered the same questions as follows: “I need to try harder in class...”, “The C+ would tell me that I’d have to work a lot harder in the class, but I have the rest of the semester to pull up my grade,” and “I’d like at what was wrong on my exam [and] resolve to do better...”¹¹⁶

Developing a growth mindset is much more conducive to improving academic performance than remaining with a fixed mindset.¹¹⁷ Most importantly, a fixed mindset *can* be trained to become a growth mindset.¹¹⁸

3. Learning Psychology and Strategies

Along with academic mindsets, teaching students about learning psychology and strategies is the simultaneously first noncognitive skill that must be developed.

¹⁰⁹ CAROL S. DWECK, MINDSET: THE NEW PSYCHOLOGY OF SUCCESS 6 (2006).

¹¹⁰ Dweck, *supra* note 109, at 6.

¹¹¹ Dweck, *supra* note 109, at 6.

¹¹² See Dweck, *supra* note 109, at 6-9.

¹¹³ *Id.* at 6.

¹¹⁴ *Id.* at 8.

¹¹⁵ *Id.* at 8.

¹¹⁶ *Id.* at 9.

¹¹⁷ *Id.* at 57-58.

¹¹⁸ *Id.* at 254-64.

Development of both academic mindsets and learning psychology and strategies should occur early in a student's law school career in an academic support program for all law school students, not just those that are academically underperforming.

Louis Schulze, who runs the academic support portion of our program at the FIU College of Law, has written about many of the learning psychology strategies we utilize¹¹⁹, and I will not rehash them in detail here. Suffice it to say that self-regulated learning and metacognition are essential skills to develop as a prerequisite for developing other necessary noncognitive skills.¹²⁰ The ability to utilize learning psychology plays a vital role in *magnifying* the benefits of a bar preparation course by enhancing the development of noncognitive skills associated with academic perseverance, academic behaviors, and, ultimately academic performance.¹²¹

Becoming an "expert learner" is key to success on the bar exam. With a myriad of subjects to learn, students must be trained on how to best learn a multitude of subjects in a short amount of time. Teaching students to become expert learners creates within them a "judgment of learning."¹²² The judgment of learning allows a student to determine whether their knowledge is adequate for the assigned task and is what distinguishes a student as an "expert learner."¹²³ Students that lack such judgment give up effort too soon without realizing that the task of mastery is incomplete.¹²⁴ Self-regulated learning, metacognition, and the strategies associated with each are the means by which we instill in our students a mature judgment of learning.¹²⁵

There are multiple ways to utilize a classroom to help students develop into expert learners. These include the retrieval practice (also known as the "testing effect"), spaced repetition, and cognitive schema theory.¹²⁶ One crucial additional vehicle, but often under-discussed, is utilizing active learning in the classroom.

Active learning has been defined as the utilization of "instructional activities involving students in doing things and thinking about what they are doing."¹²⁷ Active learning has numerous benefits that have been researched and validated. In classroom utilizing active learning, students have earned higher scores than classrooms where students were subjected to the traditional lecture.¹²⁸

¹¹⁹ Louis N. Schulze, *Using Science to Build Better Learners: One School's Successful Efforts to Raise Its Bar Passage Rates in an Era of Decline*, 68 J. LEGAL EDUC. 230 (2019).

¹²⁰ Farrington, *supra* note 62, at 39-44.

¹²¹ *Id.* at 47. Learning psychology has many other benefits apart from enhancing the development of noncognitive skills and should be reinforced throughout a student's learning.

¹²² *Id.* at 41.

¹²³ *Id.* at 41.

¹²⁴ *Id.* at 41.

¹²⁵ *Id.* at 41.

¹²⁶ Schulze, *supra* note 119, at 237-50.

¹²⁷ CHARLES C. BONWELL & JAMES A. EISON, GEORGE WASHINGTON UNIVERSITY, ACTIVE LEARNING: CREATING EXCITEMENT IN THE CLASSROOM 2 (1991).

¹²⁸ Louis Deslauriers et al., *Measuring Actual Learning Versus Feeling of Learning in Response to Being Actively Engaged in the Classroom*, PROC. OF THE NAT'L ACAD. OF SCI. OF THE U.S., Vol.

Unfortunately, one issue associated with active learning is that students *think* that they are not learning as compared to students in a traditional lecture.¹²⁹ In one study, students in a physics classroom were taught using either an active or a passive classroom.¹³⁰ The passive classroom was taught utilizing “lectures by experienced and highly rated instructors” while the active classroom was taught “following best practices in the discipline.”¹³¹ Students in the passive classroom consistently reported higher levels of agreement as compared to the students in the active classroom on survey questions such as, “I enjoyed this lecture,” “I feel like I learned a great deal from this lecture,” “[i]nstructor was effective at teaching,” and “I wish all my physics courses were taught this way.”¹³² In fact, the lowest level of agreement amongst all questions, and both classrooms, was from the students in the active classroom to the question, “I wish all my physics courses were taught this way.”¹³³ However, students in the active classroom significantly outperformed students from the passive classroom in a test of learning.¹³⁴ While these results may dissuade professors from utilizing these methods based on the belief that they will compromise student evaluations, the benefit conferred to students is great, even if they do not realize it yet.

In a law school bar exam preparation context, students may similarly want to be “spoon-fed” the rules, wrongfully assuming that knowledge of the rules is the key to success. Utilizing an active classroom in addition to promoting learning psychology may be met with a certain degree of resentment from students, particularly from those that don’t “get it” at first, but the harsher student evaluations are worth it¹³⁵ to help our students truly master the material and become expert learners.

116, No. 39, 19251 (2019), <https://www.pnas.org/content/pnas/116/39/19251.full.pdf> (finding improved outcomes in a college physics course utilizing active learning); J. Patrick McCarthy & Liam Anderson, *Active Learning Techniques Versus Traditional Teaching Styles: Two Experiments from History and Political Science*, 24 INNOVATIVE HIGHER EDUCATION 279, 288-90 (2000) (finding improved outcomes in a college history and political science courses utilizing active learning).

¹²⁹ Deslauriers, *supra* note 128, at 19253.

¹³⁰ *Id.* at 19251.

¹³¹ *Id.* at 19251.

¹³² *Id.* at 19253.

¹³³ *Id.* at 19253.

¹³⁴ *Id.* at 19253.

¹³⁵ Maybe? Professors in academic support and bar exam preparation are often in non-tenure track or administrative positions. Common evaluative criteria for retention of these professors include student evaluations. Thus, there is an incentive to placate students in order to receive higher marks on student evaluations despite what science tells us about effective pedagogy. After all, students cannot amend their evaluations once they learned that they passed the bar exam. I, however, readily accept those lower marks for improved academic and bar exam performance. For more information on whether the best teachers are the ones that receive the highest marks, see Nate Kornell & Hannah Hausman, *Do the Best Teachers Get the Best Ratings?*, FRONTIERS IN PSYCHOLOGY (Apr. 25, 2016), <https://www.frontiersin.org/articles/10.3389/fpsyg.2016.00570/full>.

4. Academic Perseverance

Academic perseverance includes the concepts of grit, tenacity, delayed gratification, self-discipline, and self-control.¹³⁶ It is a critical noncognitive factor that feeds directly into the development of academic behaviors and academic performance.¹³⁷

The idea of grit has received much attention since the publication of work by Angela Duckworth. She defines grit as “passion and perseverance,”¹³⁸ not talent.¹³⁹ She does not believe that talent has no place in achievement, but rather focus on talent is misplaced.¹⁴⁰ Instead, she believes that “as much as talent counts, effort counts twice.”¹⁴¹ In short, “[o]ur potential is one thing. What we do with it is quite another.”¹⁴²

Studies have shown, however, that Duckworth’s definition of grit – encompassing *both* “passion and perseverance”¹⁴³ – has no statistically significant relationship to academic performance. One law school study has found that there is no statistically significant correlation between Duckworth’s definition of grit and law school academic performance as measured by law school GPA.¹⁴⁴ Another study found that perseverance *alone* is a “much better predictor of performance than either consistency¹⁴⁵ or overall grit and should therefore probably be treated as a construct that is largely distinct from consistency to maximize its utility.”¹⁴⁶ Thus, the passion aspect of grit appears to be of minimal importance, and the focus on developing grit in students should instead be on the perseverance aspect of the definition.

Students are certainly not passionate about the bar exam. It is no secret that they usually detest the entire idea of a bar exam, ranging from the administrative procedures of registering to paying hundreds to thousands of dollars for the privilege of becoming an attorney, traveling to the exam site, physically taking the

¹³⁶ Farrington, *supra* note 62, at 9.

¹³⁷ *Id.* at 9; *see also* Farrugia, *supra* note 105, at 319-23 (finding that academic perseverance is a modestly strong predictor of academic success).

¹³⁸ ANGELA DUCKWORTH, *GRIT: THE POWER OF PASSION AND PERSEVERANCE* 8 (2016).

¹³⁹ *Id.* at 17.

¹⁴⁰ *Id.* at 31.

¹⁴¹ *Id.* at 34.

¹⁴² *Id.* at 14.

¹⁴³ *Id.* at 8.

¹⁴⁴ Emily Zimmerman & Leah Brogan, *Grit and Legal Education*, 36 PACE L. REV. 114, 139 (2015).

¹⁴⁵ The authors of this paper refer to “passion” as “consistency.”

¹⁴⁶ Marcus Crede, Michael C. Tynan, & Peter D. Harms, *Much Ado About Grit: A Meta-Analytic Synthesis of the Grit Literature*, 113 J. OF PERSONALITY AND SOCIAL PSYCHOLOGY 492, 502 (2017). *See also* Katherine Muenks, Ji Seung Yang, & Allan Wigfield, *Associations Between Grit, Motivation, and Achievement in High School Studies*, 4 MOTIVATIONAL SCIENCE 158, 171 (2018) (finding that perseverance is significantly more important than consistency in predicting performance).

exam, and waiting for results. A passion for the bar exam is not something I attempt to instill in my students. Luckily for me, the literature indicates that I do not need to do so to attain positive results. Instead, I focus on the perseverance half of the grit equation.

Can we develop perseverance in our students, either from the beginning of their law school career or even at the point when they begin their formal law school bar exam preparation program? Can we teach them that their natural talent is just a small part of their bar exam success and that everyone can achieve equal success on the bar exam through effort? Fortunately, yes.¹⁴⁷

The perseverance aspect of grit can be developed both from within and without. A very effective mechanism by which to grow grit from without is by creating a *culture* of grit¹⁴⁸ in a law school or within the law school's bar exam preparation program. This takes time, but I have found that the rewards are worth the wait.

Culture is defined as "[the] shared norms and values of a group of people."¹⁴⁹ "[A] distinct culture exists anytime a group of people are in consensus about how we do things around here and why."¹⁵⁰ "[C]ulture has the power to shape identity. Over time and under the right circumstances, the norms and values of the group to which we belong become our own. We internalize them."¹⁵¹ Our identity creates a drive inside of ourselves that helps us make decisions on whether to persevere or resign the effort.¹⁵²

The culture we need to create by way of a law school bar exam preparation program is one of hard work, proper mindset, accepting failure as a path to success, perseverance, and class and program participation. To create this culture initially, academic policies can be used to set expectations for the students that drive their behavior, such as grade forgiveness policies on the lowest grade received on an essay or multiple-choice assignment, opportunity to rework a low grade, and incorporating class participation and attendance as part of the final grade.

As students begin to see a law school succeed on the bar exam, the adoption of this culture is easier for students to adopt because the students are aware that the program instilled this culture of hard work their predecessors, and prior students that adhered to these cultural norms found success with them on their bar exam.

Moreover, repeated success on the bar exam adds an additional culture norm: a culture of bar exam success. Frankly, this norm was not intended, but the students at the FIU College of Law have adopted it as their own. Students expect that they will individually do well on the bar exam, but they also expect that their peers will pass the exam on their first attempt. Like a weight-loss trainer helping someone

¹⁴⁷ Duckworth, *supra* note 138, at 79-92.

¹⁴⁸ *Id.* at 247-48.

¹⁴⁹ *Id.* at 244.

¹⁵⁰ *Id.* at 244.

¹⁵¹ *Id.* at 247.

¹⁵² *Id.* at 247-48.

stay on track with their goals, fellow students routinely help their peers adhere to this cultural norm. Prior bar exam results can be a virtuous cycle for a law school student body and a cultural norm of bar exam success.¹⁵³

C. Countering Stereotype Threat

Targeting a law school's academically underperforming group will yield a substantial return on investment of resources aimed at increasing bar passage rates if done correctly. Given how limited academic support resources are at many law schools, targeting also allows for efficient utilization of resources for those that are most likely to benefit from targeted interventions. Unfortunately, targeting students for these types of interventions, including academic support courses in the first two years of law school, introduces the issue of stereotype threat into the mixture. While we may never eliminate stereotype threat completely, there are mechanisms we can employ to minimize and counter its effects.

Stereotype threat arises when individuals are "at risk of confirming, as self-characteristic, a negative stereotype about one's group."¹⁵⁴ Someone that is experiencing a situation where "one faces judgment based on societal stereotypes about one's group" faces a stereotype threat.¹⁵⁵ Stereotype threat applies to *any* group where there is a recognized stereotype, not just minorities.¹⁵⁶

Research into stereotype threat has shown that its effects are quite real across different stereotyped groups. In one study evaluating stereotype threat, participants were divided into two groups: "race primed" and "no race primed."¹⁵⁷ Each group was given one of two questionnaires to complete before attempting to solve several GRE questions.¹⁵⁸ The "race primed" group, however, received a questionnaire that included as its final question a request to disclose the person's race.¹⁵⁹ That one simple question altered the performance of black students drastically.

Results for the "no race prime" group, where students were not asked to disclose their race, had black students performing equally as well as white students.¹⁶⁰

¹⁵³ While unanticipated, this cultural norm of bar exam success is welcomed. Student organizations have created shirts that students take to the bar exam with phrases such as "#threepeat" and "#fourpeat", referencing the first place results on July bar examinations. This cultural norm has caught on at the FIU College of Law.

¹⁵⁴ Claude M. Steele & Joshua Aronson, *Stereotype Threat and the Intellectual Test Performance of African Americans*, 69 J. OF PERSONALITY AND SOCIAL PSYCHOLOGY 797, 797 (1995).

¹⁵⁵ Steven J. Spencer, Claude M. Steele & Diane M. Quinn, *Stereotype Threat and Women's Math Performance*, 35 J. OF EXPERIMENTAL SOCIAL PSYCHOLOGY 4, 5 (1999).

¹⁵⁶ Claude M. Steele, *A Threat in The Air: How Stereotypes Shape Intellectual Identity and Performance*, 52 American Psychology 613, 614 (1997) ("[Stereotype threat] is a situational threat--a threat in the air--that, in general form, can affect the members of any group about whom a negative stereotype exists (e.g., skateboarders, older adults, White men, gang members)").

¹⁵⁷ Steele, *supra* note 154, at 807.

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

However, the “race prime” group, where students were asked about their race, had black students perform significantly worse than their white counterparts.¹⁶¹ Curiously, participants in the study indicated that acknowledging their race in the questionnaire was unremarkable “because they had to do it so often in everyday life.”¹⁶²

The results of this study are not unique to black students. Adverse effects on performance have been seen in numerous other studies where any group is stereotyped, including women¹⁶³ and Asian-Americans.¹⁶⁴ In fact, even white golfers experienced stereotype threat and performed worse than black golfers when the white golfers were told that they were being measured on their natural athletic ability.¹⁶⁵

Academically underperforming law students with a decreased likelihood of passing the bar exam on their first attempt are likely not immune to the effects of stereotype threat either. Students are fully aware that law school GPA plays an important role in bar passage. The bottom 20-40% of the class faces a negative stereotype associated with bar exam failure. This, by itself, is enough to increase the risks of bar exam failure, and unnecessarily so. Additionally, minority law students face an added stereotype threat because data shows that they are at a higher risk of bar exam failure.¹⁶⁶

There are, however, various strategies that can be employed to reduce or eliminate the stereotype threat faced by academically underperforming law students. These strategies include managing perceptions in the form of reducing negative stereotypes and creating positive stereotypes.¹⁶⁷

There are several ways to reduce negative stereotypes when it comes to the bar exam. The first is by reframing the purpose of the bar exam itself.¹⁶⁸ Students must be told that the bar exam is not a test of intelligence but rather a test of

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ See generally Spencer, supra note 155 (finding stereotype threat to exist for women on math tasks).

¹⁶⁴ See generally Sapna Cheryan & Galen V. Bodenhausen, *When Positive Stereotypes Threaten Intellectual Performance: The Psychological Hazards of “Model Minority” Status*, 11 PSYCHOLOGICAL SCIENCE 399, 401 (2000) (finding that “positively stereotyped social identity can constitute a threat to academic performance... [and creates] difficulties in concentration that translated into significantly impaired performance”).

¹⁶⁵ See generally Jeff Stone, Christian I. Lynch, Mike Sjomeling & John M. Darley, *Stereotype Threat Effects on Black and White Athletic Performance*, 77 J. OF PERSONALITY AND SOCIAL PSYCHOLOGY 1213, 1217 (1999).

¹⁶⁶ See LINDA F. WIGHTMAN, LAW SCHOOL ADMISSION COUNCIL, LSAC NATIONAL LONGITUDINAL BAR PASSAGE STUDY 27-31 (1998), <https://www.lawschooltransparency.com/reform/projects/investigations/2015/documents/NLBPS.pdf>.

¹⁶⁷ Catherine Martin Christopher, *Eye of the Beholder: How Perception Management Can Counter Stereotype Threat Among Struggling Law Students*, 53 DUQ. L. REV. 163, 172-78 (2015).

¹⁶⁸ *Id.* at 172.

preparation.¹⁶⁹ Because of this, it is important that there be a level of inclusivity for all students in bar exam preparation programs to minimize the stereotype threat. Targeted law school bar exam preparation programs raise the risk of stereotype threat, but wholly inclusive programs can mitigate that danger by reframing the message associated with the purpose of the course: learning how to prepare for the exam rather than remediating certain students. Stressing the consistency of the bar exam may have the beneficial effect of reducing the negative stereotype threat further.¹⁷⁰ Lastly, including others into a bar exam preparation program that have struggled academically yet passed the bar exam, i.e. alumni, may provide a model for others on how to properly prepare for the exam.¹⁷¹

Creating positive stereotypes involves proper messaging and advertising.¹⁷² Messaging and advertising is one method by which we can directly control the perception of bar exam preparation programs in a law school setting.¹⁷³ We can utilize data not only to tell our students how the bar exam is a test of preparation but to show them. We can also use data to show current students that successful alumni who took specific actions and enrolled in the law school bar exam preparation course fared better than those that did not. We can also use this messaging and advertising to promote our culture of grit.¹⁷⁴

IV. IMPLEMENTING A LAW SCHOOL BAR EXAM PREPARATION PROGRAM: AN OVERVIEW OF FIU'S PROGRAM

A. What I Saw at FIU When I Arrived

When I arrived at the FIU College of Law, I first looked at the bar passage rate numbers of our recent test takers broken down by quintiles for LSAT, undergraduate GPA, and graduating law school GPA.¹⁷⁵ I discovered what others had generally found at their law schools: both LSAT and graduating GPA played a role in predicting first-time bar exam passage with the graduating GPA being more impactful than LSAT. Undergraduate GPA was not statistically significant in predicting bar passage at the time of graduation. I discovered that our bottom quintile was passing the bar exam at an average rate of only 58.6% (n=431), while the relevant statewide average Florida bar exam passage rate ranged between 72-

¹⁶⁹ *Id.*

¹⁷⁰ *Id.* at 173.

¹⁷¹ *Id.* at 175. However, I disagree with the article's author that bar exam preparation programs should be run by lawyers. Bar exam preparation is both an art and a science unto itself, and should not be left to individuals whose only qualification is successful bar passage. These lawyers, however, do serve a useful purpose in a post-graduation bar exam mentorship program.

¹⁷² *Id.* at 178.

¹⁷³ *Id.*

¹⁷⁴ See *supra* text accompanying notes 138-152.

¹⁷⁵ This was the only data available at the time.

80% at the time. The 4th quintile (second from the bottom) was passing at an average rate of 74.7% (n=431). While this result for the 4th quintile was often in line with the state average, my goal was to have the FIU College of Law exceed the state average.¹⁷⁶ My design strategy would incorporate ideas of targeting both the bottom quintile precisely and everyone else generally so as to “lift all boats.”

The bar exam preparation program that existed at the time of my arrival consisted of a final semester course. There was no separate prerequisite course targeting academically underperforming students at a higher risk of failing their bar exam on their first attempt. In the semester prior to my hiring, an adjunct professor and a commercial bar exam preparation company that I identify as Company 3 later in this article, taught the course. This arrangement was suboptimal and the February 2015 Florida bar exam results bore this out with the lowest passing percentage we have ever received on the Florida bar exam – 63% – even falling below my stated goal of exceeding the state average in Florida.¹⁷⁷

Several policies adopted by the FIU College of Law and related to the commercial bar exam preparation companies also caused me some consternation based on my theories of implementation. First, one of the major national bar review companies was teaching the MBE subjects in the then final semester bar review course and focusing *solely* on reteaching doctrinal law.¹⁷⁸ Second, all bar review vendors had unmitigated access to our students, including virtually unfettered tabling rights and permission to email students directly. This caused me concern because of the mixed messaging regarding bar exam preparation strategies from the commercial vendors and from me. It is critically important that my students trust me more than they trust their bar exam course vendor because I will eventually tell the students to complete different assignments than what their commercial course instructs them to do and allowing the commercial vendors to inject their often contrary messaging is deleterious to that goal. Third, the bar review vendors routinely presented our incoming students with 1L materials at orientation and marketed them as the key to success in law school, again running contrary to our messaging at our first- and second-year academic support level. The policies associated with bar preparation company access to our students would need to be reviewed as well.

The changes implemented resulted in the bar exam preparation program implementing two courses in the final year instead of the pre-existing single course.

¹⁷⁶ My goal has never been to place first in the Florida bar exam results between Florida schools, but rather to help every law student I teach be successful on their exam. The first-place results are welcomed and show that my students are working diligently.

¹⁷⁷ *February 2015 General Bar Examination Results*, Florida Board of Bar Examiners, <https://www.floridabarexam.org/85257bfe0055eb2c.nsf/52286ae9ad5d845185257c07005c3fe1/61848a37f7f3ac9c85257e27005dc978> (last visited Dec. 10, 2019).

¹⁷⁸ Focusing solely on doctrinal law didn’t work too well for our students taking the February 2015 Florida bar exam. See Florida Board of Bar Examiners, *supra* note 177.

These courses are titled Advanced Legal Analysis and Law & Procedure. Each course in the bar exam preparation program was designed to work on the development of cognitive and noncognitive skills while utilizing a limited amount of doctrinal law for skills development purposes. The program serves both full-time and part-time students. Additionally, after graduation, students are paired with mentors as part of our Bar Exam Success Program, or BESP. The changes to the program also involved restricting commercial bar exam preparation vendors from contacting our students without my permission. As before, we did not implement any bar exam preparation courses before the third year as I do not believe that this is either necessary for successful bar passage, nor should we ever be “teaching to the test.”

In the sections that follow, I will review in more detail the changes that were made to the FIU College of Law’s bar exam preparation program. I will begin with a brief discussion of the first- and second-year academic success courses followed by a discussion of the penultimate semester bar preparation course for the bottom 20% of the class. Finally, I will discuss the revamped final semester course and the post-graduation bar exam study support program.

B. Academic Support For 1- and 2-L Students

Prior to students enrolling in the bar exam preparation program, the bottom 20% of the class participate in our academic support program in their first and second years. In these courses, students are introduced to the concepts associated with learning theory, including spacing repetition, organizational schemas, and the testing effect. These courses are contextualized with the courses these students are required to take. For example, in the Legal Analysis class in the first semester of the second year, the course is contextualized with our evidence course.

While these courses are not designed to be bar exam preparation programs – nor should they be – they provide the bottom 20% with an introduction to learning theory and its applications in law school. Those students arrive to my bar preparation program better prepared to learn how to develop those skills further and how to apply them to the bar exam arena, where the number of subjects to be mastered is numerous, and the time in which to master them is much shorter. Thus, it is essential that students be afforded academic support that relies on teaching students how to learn if law schools want to make it easier for those students to transition into a rigorous bar exam preparation program with minimal shock value. While I believe this to be a necessary condition for student success on the bar exam, it is by no means sufficient for improving the odds of first-time bar exam success. Targeting the other noncognitive factors is just as, or even more, vital to success.

C. Advanced Legal Analysis

The bar exam preparation program begins with a course titled Advanced Legal Analysis (“ALA”). In the first semester of a student’s final year, the bottom 20% of the class is required to take this course.¹⁷⁹ ALA is a graded, 2-credit course designed to introduce students to the bar exam and the skills necessary to pass the exam but in a slower fashion than our final semester bar exam preparation course. The course was designed with the belief that students in ALA would thereafter enroll in that final semester bar exam preparation course.

As an overwhelming number of our students take Florida as their bar exam jurisdiction of choice, ALA introduces students to both the MBE and Florida essay portions of the Florida bar exam by utilizing three “cross-over” subjects: torts, contracts, and real property. A cross-over subject is defined as a subject that is tested on both the MBE and the Florida essay portion of the Florida bar exam. While there are several other cross-over subjects in Florida, I decided that three was the appropriate number to set a slow pace for discussion and development of skills in the classroom. I decided to forgo Florida multiple-choice subjects as I find that working with essays allows me to develop cognitive analytical skills better.

Each of these cross-over subjects is taught in the span of three weeks with class meeting once a week. The first week of a subject utilizes a flipped classroom model. Students must watch a video before class that targets a very narrow area of MBE law in the cross-over subject being covered and is meant as a refresher on the subject rather than a tutorial, although it often becomes a tutorial for the bottom 20%. Students must then take an ungraded practice quiz before class on the material they just reviewed. Finally, based on the results of that quiz, students are to review their areas of deficiency in preparation for their first in-class session on the subject.

Upon then attending the first classroom session on the subject, students are given an in-class quiz utilizing a bubble sheet to simulate an MBE, albeit for a much smaller number of questions. Students are given exactly 1.8 minutes per each question.¹⁸⁰ After time is called, the bubble sheets are collected to be graded electronically after class. The questions are then reviewed together in class. Emphasis is placed on allowing students themselves to conduct the discussion of the questions and the rationale for why students chose particular answers. After the first class, students review what they learned in class and take a final, graded quiz on the subject.

¹⁷⁹ Since our part-time students typically graduate in December rather than May, they have only one semester in their final year of study – 4L. A decision was made that students in the part-time program be waived from taking Advanced Legal Analysis and instead proceed directly to Law & Procedure, as discussed more fully herein. If and when there appears to be a need for the part-time program to have a course such as Advanced Legal Analysis, I will address an appropriate program structure at that time.

¹⁸⁰ This is the same amount of time that students receive per question on the MBE.

The second class on a subject is a mixed lecture and skills class. The lecture portion begins with a brief talk on significant differences between Florida and MBE law that will be used to practice Florida essays. After the lecture, students are handed a practice essay to dissect. Like the first in-class session, students take the lead developing the organization, law, and analysis to be used to answer the essay. A guided discussion is also utilized before writing to ensure students were able to dissect the essay and discuss issues and analysis that were not apparent at first glance. After this class, students write an essay with similar issues as their homework assignment.

Lastly, the third class in a subject is meant to showcase “the good, the bad, and the ugly” student essay homework submissions. Students are shown various submissions from other students in the class and asked to identify what made the essay a good, great, or not-so-great essay. This process is anonymous so as not to stigmatize the student being reviewed. Finally, students are assigned two essays from other classmates to provide substantive and anonymous feedback. This exposes students to a broader array of essays and allows them to see various organizational and analytical techniques that they may incorporate into their own work.

ALA incorporates a midterm and final exam covering both Florida essays and MBE multiple-choice questions. The midterm consists of two midterms, one covering the Florida essay subjects and the other covering the MBE subjects. The final exam is structured similarly.

D. Law & Procedure

In the final semester, all students can take my bar preparation course called Law & Procedure, but it is required for the bottom 20% of the graduating class. Despite the voluntary nature of the course for the other 80% of the class, virtually all students at the FIU College of Law enroll in the course. Law & Procedure is a graded, 4 credit course.

The Law & Procedure course was taught the very first semester I began teaching at FIU in our spring semester of 2015. Students in the class then went on to take the July 2015 bar exam, and they placed first in the Florida bar exam results for that administration. This group of students was never exposed to the current iteration of our first- and second-year academic support program based on their date of enrollment,¹⁸¹ but the Law & Procedure course still afforded students the opportunity to develop skills critical for bar exam passage rapidly. Since then, the course has had incremental changes made to it based on teaching experience and

¹⁸¹ Although these students were exposed to a predecessor academic support program at the FIU College of Law, that program was substantially different than the current iteration of our program. Thus, it was not well-aligned with the goals of the bar exam preparation program.

student feedback, but the core of the classroom and the pedagogy has remained the same.¹⁸²

Law & Procedure covers all of the MBE subjects, and seven of the Florida bar exam tested subjects. For the Florida subjects, the course spends classroom time covering Florida specific law followed by in-class activities on that material. After class, students complete additional assignments on the material and activities used in the class. For the following class session, the previous homework assignment is reviewed, and common misunderstandings addressed. The class then proceeds as before.

For the MBE subjects, each subject is actually taught in the span of two classroom sessions, with the first classroom session being a doctrinal lecture on the salient points of the MBE subject and issue spotting concepts associated with those topics, with the second classroom session consisting solely of in-class activities focusing on skills development. After the second classroom session on a subject, students are to complete additional online work reviewing the materials, testing themselves on their performance, and correcting the deficiencies they have identified. The process then repeats for the remaining MBE subjects.

My intention with this course to convert it into an entirely flipped classroom so that all classroom sessions can be dedicated solely to in-class activities targeting the development of cognitive and noncognitive skills. Unfortunately, I have not found enough substantive videos on Florida and MBE law of decent quality for use in the course. One option is to record these videos myself, which will be forthcoming in the very near future.

In addition to the myriad formative assessments assigned, Law & Procedure has two midterms and a cumulative final exam. The midterms are scheduled one immediately after the other to simulate the pressure of a bar exam. The first day of the midterm focuses on Florida essays and Florida multiple-choice subjects. The second day of the midterm covers the MBE subjects and is thus multiple-choice only. The final exam is a cumulative exam that covers both essays and multiple-choice questions from Florida and the MBE. Both the midterm and final are accompanied by a review session conducted by a review session in class and online delivery after the final exam.

E. Bar Exam Success Program (BESP)

Upon graduation and the willingness of a student to participate, students are paired with a faculty or alumni mentor for the duration of their bar review using their commercial bar exam preparation company. In order to be selected as an

¹⁸² The realignment of the first- and second-year academic support program has helped students develop the skills discussed previously so they arrive into the bar exam preparation ready to develop them further.

alumni mentor, the alumnus must have participated in BESP themselves and passed their exam on the first attempt. While the alumni mentors are trained on how to mentor students in the program correctly, only the top half of the class is assigned to alumni mentors. This is done because the top half of our class passes the bar exam at a very high rate, and the risks associated with providing an alumnus as a mentor is minimal. The bottom half of the class, on the contrary, is retained with faculty mentors, namely me and my colleague in our Academic Excellence Program.

The logic behind this decision centers on the passage rates of our top half of students. Those students traditionally pass at a rate that exceeds our state average. Alumni mentors are full-time practicing attorneys, and I recognize that they cannot dedicate as much time to their mentees as we can within the FIU College of Law. The bottom half of the class needs more attention, guidance, and support, so I decided to keep those students in-house.

BESP provides support to students after graduation in various ways. First, the program provides weekly or bi-weekly 1-on-1 meetings with mentees to review their performance and recommend changes to their study schedules and habits. These meetings also discuss personal factors that a student may be encountering, such as stress, anxiety, family, and other personal issues. To guide students on how to target their weaknesses better, we formulate our advice by incorporating extensive data metrics into our judgments. The bar review companies provide us with access to information about each student, including how far along with the program they are, the assignments completed or missed, performance scores on multiple-choice questions, and essay scores. This array of data allows us to inform our students about whether they are meeting the expectations for passage and, if not, what a student should do to change their trajectory.

BESP also provides students with a schedule that incorporates their supplemental MBE review program into their substantive bar review course. We utilize a program that incorporates several facets of the science of learning to improve student scores on the MBE. As no bar review company has this level of technology incorporated into it – in my opinion – I provide students with a custom schedule of assignments showing them how to integrate the two.

Lastly, BESP is not a tutoring service. We explicitly tell all alumni mentors that if a student has a substantive question, they must figure out the answer themselves or contact their commercial bar review program for a solution. We emphasize self-regulated learning the program, and tutoring is contrary to that objective.

As is tradition with all Florida law schools at the Florida bar exam, BESP provides students with lunch at their examination site during the two days that the students are in Tampa, Florida, for their bar exam. This helps students maintain a sense of cohesion and shared goals. It also provides me with an opportunity to calm

any nerves and address any issues that may have arisen in the morning session of the exam.

F. Developing Noncognitive Skills in the Bar Prep Program

Both Advanced Legal Analysis and Law & Procedure were designed to develop students' cognitive and noncognitive abilities through various mechanisms. Cognitive skills are developed by way of various classroom activities and homework where students are required to analyze bar exam essays and MBE questions, as well as offer a meaningful anonymous critique of other student works, as discussed in the last section. The development of noncognitive skills is accomplished mainly through course policies and course activities that are examined below.

1. Academic Behaviors

To foster proper academic behaviors, the courses are designed to promote attendance, completion of all assignments, proper student organization for the class, active participation in class, and studying. These positive academic behaviors are readily encouraged through grading policies stated in the course syllabi.

The FIU College of Law's attendance policy indicates that if a student misses more than the allowable number of classes under the ABA Standards for Accreditation, the student will receive a grade deduction for every absence in excess of the allowed maximum. However, both courses deviate from this standardized policy.¹⁸³ In its place, the course syllabi state that if any student misses more than the allowable number of classes under the ABA Standards for Accreditation, the student will not be allowed to sit for the final exam and will automatically receive a grade of 'F' in the course. In the Law & Procedure course, this would mean a student would likely have an insufficient number of credits to graduate and would be required to take an additional semester course. Fortunately, this policy has never been applied because students comply with it strictly, and excused absences are always allowed. Moreover, the number of classes missed, even if insufficient to trigger the aforementioned policy, is part of a student's final grade in the course.

This policy was enacted as a mechanism to simulate the importance of complying with one's responsibilities during the use of a student's commercial bar exam preparation course, and students are told as much. Missing an assignment in a commercial bar review course means a student will begin to fall behind quickly

¹⁸³ Our academic policies permit professors to impose stricter attendance requirements than those required by the ABA.

if they do not take the proper corrective action. Similarly, if a student misses class, they will not be able to save themselves from the consequences, either.

Completion of assignments is critical for both courses as these assignments are the primary mechanisms by which we reinforce learning theory. Assignments involve either in-class activities, multiple-choice question assignments, essay assignments, and readings. Both courses have a strict policy that does not permit late assignments unless the failure to complete the assignment would be excused for medical emergencies, religious holidays, or other important reasons. Although students will receive a score of 0 on any late assignment, they are permitted to complete the assignment for 0 credits to obtain performance feedback. Virtually all students that miss assignments exercise this option. These assignments are also a large portion of a student's final grade. For example, the essays assigned to be written and peer-reviewed account for 20% of a student's grade. This is the same percentage weight as their midterm. The reasoning for this is the same as the attendance policy: completion of assignments is critical to improving performance on the bar exam.

Failure to complete these assignments without even so much as completion for no credit has a doubly negative impact on a student's grade. Because of the science of learning utilized in both courses, assignments are always reviewed in class, and new assignments are issued using the prior assignments as a reference point from which to continue to reinforce learning. This is the reason so many students choose to complete assignments they missed despite not receiving credit for that assignment.

These policies stem from the need to have students learn that preparation is key and what preparation entails for the bar exam. For this reason, law school bar exam preparation courses must be graded and provide credits towards graduation. The alternatives are either a pass or fail course for no or little credit. This structure sends the wrong messaging for promoting positive academic behaviors, namely that preparation requires the most minimal amount of work to achieve a result of pass. Worse, a course offering little or no credit may send the message that the course and what is taught in it is not very important.

These courses also teach students the proper way to organize themselves while studying multiple subjects in a relatively short amount of time. Similar to the actual bar exam, students must develop the skills necessary to organize study time for multiple subjects. My two courses develop these skills by teaching students how best to structure their study time and create structured systems for organizing their knowledge into easily accessible chunks. Formative assessments utilizing spaced repetition forces students to remain organized since they know that they will frequently have to return to review earlier subjects. Students are also required to maintain organized flashcard decks that they create themselves as well as essay notebooks on the various Florida essay subjects covered in the course.

To promote active learning, students are encouraged to lead discussions on analytical techniques during in-class exercises. Essay exercises, for example, are wholly student-led with me only interjecting analytical points that the entire class seems to have missed. The course seeks to have its teacher serve as a “guide on the side” rather than the “sage on the stage.” Moreover, because laptops have been shown to be deleterious compared to handwriting notes,¹⁸⁴ both classes have a strict “no laptop” policy. Exceptions are made, however, for students requiring accommodations. Students are provided with notepaper that outlines the discussion to be had in class to aid students in creating useful organizational schemas for the various subjects.

Lastly, the intense nature of the course teaches students the importance of timely and proper study techniques. Because of the multitude of formative assessments, in-class activities, midterms, and final exams, students must continuously study and stay atop their deficiencies. Students always have a quiz at the beginning of class on the assigned readings. This also plays a crucial role in also having students utilize the benefits of the science of learning to master the subjects covered in the two courses.

2. Academic Perseverance and Growth Mindset

ALA and Law & Procedure are also designed to foster a growth mindset and develop the perseverance aspect of grit. These two concepts of perseverance and growth mindset go hand-in-hand, and I have found that they can be developed simultaneously.

Both ALA and Law & Procedure are challenging courses, and intentionally so. They challenge a student immediately with both the difficulty of the content and the workload expectations required to earn a good grade in the courses. The reason for this is because I want students to see that through perseverance, their scores can improve even when starting the class with the most challenging of problems. This process can be frustrating for many students, but as the course progresses, and using all the mechanisms described throughout this article, students begin to improve on these challenging tasks and begin to recognize that the bar exam is truly a test of perseverance and preparation.

To develop a baseline by which I show students how they are growing and how grades and LSAT are simply old numbers with no bearing on the bar exam, I assign to students in class a tough MBE question on evidence. I know full well that almost all of them will fail at that task. In the decade I have been teaching in academic

¹⁸⁴ See Colleen P. Murphy, Christopher J. Ryan, Jr. and Yajni Warnapala, *Note-Taking Mode and Academic Performance in Two Law School Courses*, 68 J. OF LEGAL EDUCATION 207, 221-27 (2019) (finding improved academic performance in two law school courses where students handwrote instead of using laptops).

support and bar exam programs, and with thousands of students enrolled in these programs, only two students have ever managed to answer the question correctly.¹⁸⁵ After this assignment, every student is aware that they are deficient in what is actually a straightforward question, but one that is tested in an odd fashion. This mechanism has the added benefit of leveling the playing field between the top students and the bottom 20% that have been targeted previously because even those students mismark the question. Students then begin to see that preparation is key to success on the bar exam, not the fact that someone may have earned a book award in evidence. And yes, the students are told the correct answer and the proper analysis, so they do not make the same mistake twice.

Another method by which I encourage the development of perseverance is by bringing alumni that have taken the courses and have gone on to find success on their bar exam to speak to the students early in the semester. The success of these students in propelling the FIU College of Law to excel on the bar exam has also helped create a culture of grit around the program. When students take my bar exam preparation courses and see how others before them found success, they feel as though they are joining a team that is bent on success on the bar exam. Students see what others before them have accomplished and seek to continue that tradition. This culture has evolved and has been encouraged by me to grow so that students entering the program feel as though the expectations for growth and performance are both reasonable and attainable. This culture is self-reinforcing in a virtuous cycle.

Another tool that I have found that encourages a growth mindset is allowing students to learn from the mistakes of their peers. In the past, I utilized class time to show students how other students performed, particularly with essay assignments. I would show students “the good, the bad, and the ugly” submissions of their peers as learning tools, identifying what essays did right and what they did incorrectly, and how to improve upon those mistakes. The student submissions were shown anonymously for obvious reasons. More recently, I have automated this process and, in my opinion, improved its efficacy. Using technology, student essay submissions are now assigned to two random students in the class for anonymous peer review. I provide students with a set of criteria to utilize in providing feedback to two other students in the class after the assignment submission deadline. The quality of that feedback is incorporated into a student’s assignment grade. The criteria address several items that the commentator must discuss, with emphasis on the questions of what they essay did correctly, what the essay missed, and how the commentator would fix the missed issues, rules, or analysis.

¹⁸⁵ An MBE question only has four answer choices available. The question requires such a deep analysis that it deceives students as to the right answer. Statistically, guessing for these students would have produced a better result than attempting a proper analysis of the question.

While I will still review some essays during class time, the ability of students to see other students' work is proving to be, at least anecdotally, quite an improvement as students can be exposed to many more sources of imperfections from which to learn. The sheer act of being placed in the role of the professor and pass judgment about the quality and substance of an essay submission helps the student develop their knowledge and help them recognize that they are growing from the process. More importantly, it allows students to see how their peers are performing and undertake a meaningful comparison between themselves and others. Hopefully, this shows them how much further they must go to achieve adequate performance. The flip side is that if their work is superior to those that they are peer-reviewing, it provides them with an opportunity to develop a deeper understanding by critiquing the work of others.

Lastly, I praise effort in the class. I tell my students quite clearly that no one will ever fail either of my classes if they have put forth an effort. I have to this day stood by my word. Effort is the method by which we grow. Without effort, there can be no genuine success in life, and certainly not on the bar exam. I remind students of this fact, and after every formative assessment, I remind them of where their peers were just months before them. More importantly, I remind them that through effort, their predecessors managed to pass the bar and become members of our noble profession.

A growth mindset and developing perseverance is crucial for students and success on the bar exam. Once students begin to see their deficiencies, we must do all we can to prevent them from being discouraged at their level of performance and deciding that academic and intellectual growth are impossible. Helping students transition from a fixed to a growth mindset is a vital task that will help all students elevate their thinking and allow them to pass their bar exam, and challenging students to develop their perseverance for the task is a crucial foundation for achieving that goal.

3. Science of Learning

The science of learning is the glue that holds all other noncognitive factors together. Ideally, training students in the science of learning is a task that should be begun from the day students begin their law school orientation, and we do this at the FIU College of Law. Unfortunately, this is not always the case. For a law school bar exam preparation course, the difficult part is to teach students about the science of learning in a short time and as applicable to an exam with a variable number of subjects. This is accomplished through proper course design and effective pedagogy. However, relying solely on the final semester bar exam preparation course is extremely difficult, and students are best served if the science of learning is taught early in their law school career.

Perhaps the most critical aspects of learning science that I utilize in my courses is retrieval practice, sometimes referred to as the testing effect, and spacing repetition. A conscious and deliberate effort was made to ensure that these techniques and their benefits permeate both final-year courses and the Bar Exam Success Program described below. Both are a crucial component of all in-class activities and homework assignments and have been, in my opinion, one of the most significant reasons why the FIU College of Law has excelled. It also allows students to see their improvement over time when utilizing this method.

Before, during, and after each class meeting in either ALA or Law & Procedure, students must complete an assessment on the subject being covered. The assessments focus mostly on the material that was discussed, but it does incorporate questions from prior subjects to ensure that students are forced to retrieve prior knowledge. This continues well into the post-graduation Bar Exam Success Program with the creation of customized schedules that I create for students to emphasize retrieval practice.

Students are also required to utilize a digital platform to practice their spacing repetition on various subjects. After each subject, students create 30 flashcards on the material that was covered. Thereafter, students must utilize the platform to review those flashcards on a schedule dictated by the software following an algorithm based on Hermann Ebbinghaus' research.¹⁸⁶ Students continue to create and review these flashcards into their Bar Exam Success Program enrollment.

A great benefit to teaching students how to utilize these effective techniques in their final year of study is that there is buy-in into the process. Thus, when I tell students what they should be doing post-graduation to continue reaping the benefits of these techniques, there is never any pushback.

Does this work for the bar exam? Figure 5 and Figure 6 below show the number of MBE questions completed as well as the accuracy rate for those questions taken on an online MBE practice system for July bar exams. School 1, School 2, and School 3 are 3 other schools in Florida ranked similarly with the FIU College of Law. The charts show that as the program has developed at FIU and as students have bought into the culture of bar preparation, both the number of questions completed and the accuracy rate has increased over time.

¹⁸⁶ HERMANN EBBINGHAUS, *MEMORY: A CONTRIBUTION TO EXPERIMENTAL PSYCHOLOGY* (Henry A. Ruger, trans.) (1885).

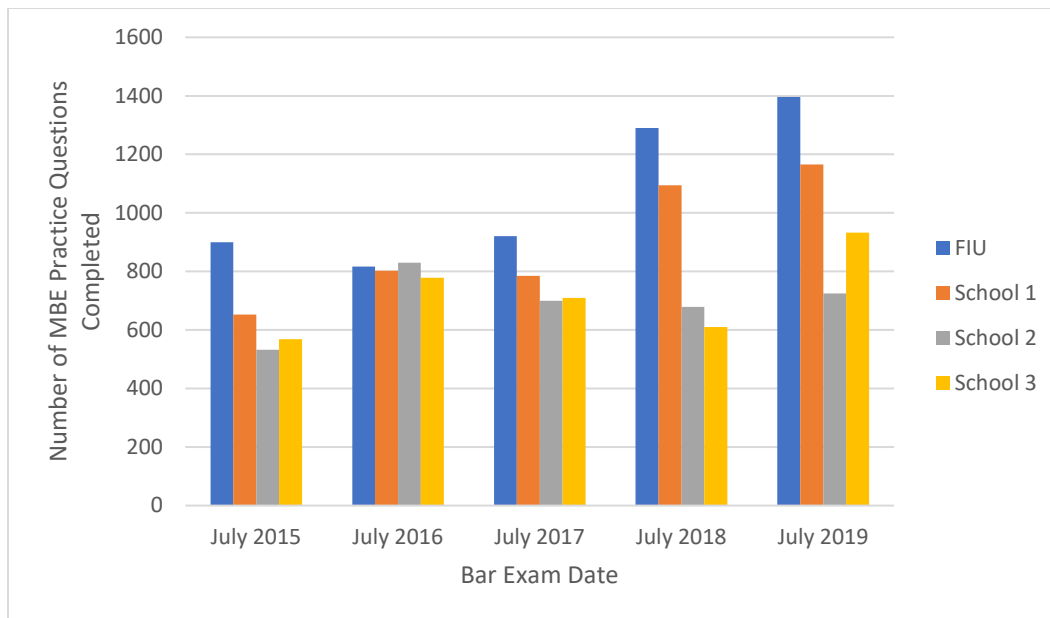


Figure 5 - Number of MBE Practice Questions Completed by School

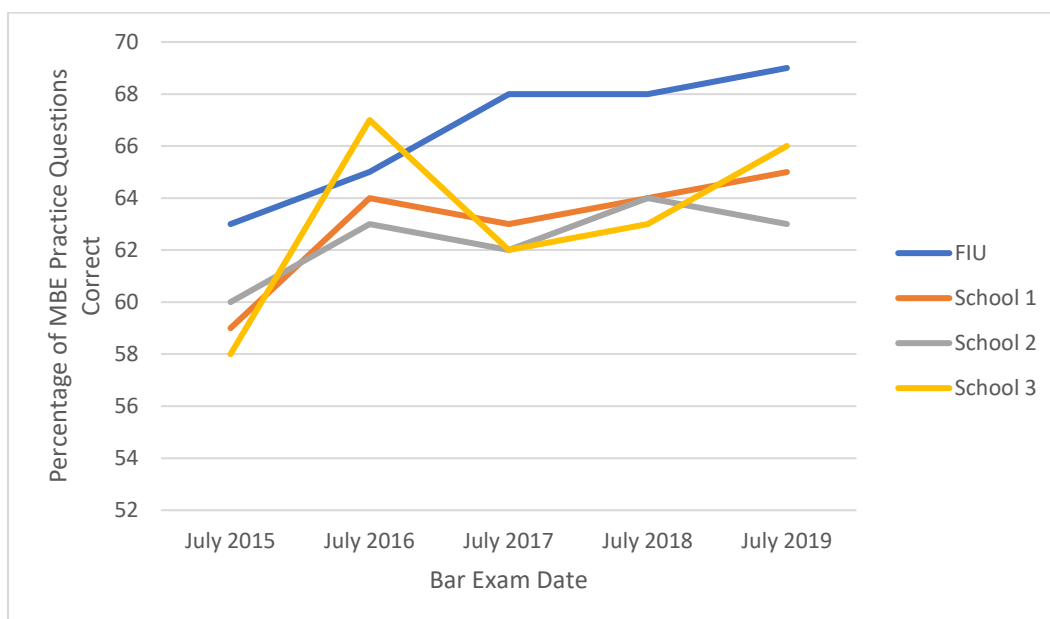


Figure 6 - Percentage of MBE Practice Questions Correct by School

G. Controlling the Message: Exclusion of Commercial Bar Exam Preparation Companies from Campus

When I arrived at the FIU College of Law, my initial review of the status of the bar exam preparation program revealed that the commercial bar exam preparation companies were too intertwined with the students. While these companies certainly did not have any motive to do a disservice to our students by peddling inferior wares, their methods were not conducive to creating a positive learning environment that reinforced the importance of self-regulated learning. Instead, the companies were peppering students with marketing on why their product was superior to others.

In the Law & Procedure course, the raw regurgitation of law without developing noncognitive skills – including learning science – had produced subpar results. A commercial bar review vendor was teaching the MBE portion of the course before I arrived. That arrangement had produced mixed results, including producing an FIU College of Law passing rate of 63.0% compared to the state average of 64.3% on the February 2015 Florida bar exam. The first class I taught for Law & Procedure in the spring semester of 2015 placed first in the July 2015 Florida bar exam, but at that time, I was unable to remove the vendor from the classroom for that semester, given that I was new on the scene. I attribute that result to the increased emphasis on noncognitive abilities development and practice rather than a regurgitation of law for the MBE portion of the course. It was with this very first class, and despite the regurgitation of law by the vendor, that students were exposed to noncognitive skills development. I believed in this method very strongly, so I removed the vendor from the classroom entirely beginning in the Fall 2015 semester and ever since.

All commercial bar exam preparation companies are forbidden from tabling at the FIU College of Law or even emailing our students at their university-provided email account. The reason for this is because the messaging that these vendors relay to students is that their outlines are the key to success not only on the bar exam but also in doctrinal courses. I believe in developing all noncognitive skills, which includes the use of the science of learning, but because these vendors do not believe the same, or at least were not espousing those beliefs to our students, it was decided that they would have only limited contact with our students during specified times when our students were selecting their bar review course.

This meant, of course, that the FIU College of Law would have to take up the slack to show our students the correct way of studying for their law school courses and the bar exam using the aforementioned theories and implementations without the use of commercial outlines. We have found that exclusion of the commercial bar review companies from unrestricted access to our campus has had no negative impact on students, nor have students sought to have that policy changed. All in all,

we feel this policy has done far better for our students than not, and I intend to continue it unless and until circumstances warrant otherwise.

This is not to say, however, that we do not work with the commercial vendors at all. On the contrary, we utilize their materials in our courses as a source of review and learning of doctrinal law, practice questions and essays, and sample answers. We also work closely with them to monitor our students during the actual bar study periods for the February and July bar exams. What we control with the commercial vendors is how they access our students. We serve as gatekeepers for the benefit of our students.

As part of my gatekeeper function, I have decided to exclude one of the commercial bar exam preparation companies from our campus altogether. As you may notice from Table 12 in the Appendix, the commercial bar exam preparation service Company 2 had only 54 students use their program since the July 2015 bar exam. While their numbers were on par with Company 3, it was decided after the July 2018 exam that the FIU College of Law would no longer utilize their services. As we will see in the next section, this decision was made after a statistical review of their effectiveness with our students across all GPAs, but with emphasis on the bottom half of the class's GPA.

V. STATISTICAL ANALYSIS OF EFFECTIVENESS

Evaluating the effectiveness of any academic intervention, including an academic support program and law school bar exam preparation program, must be done with a sound statistical analysis rather than anecdotal evidence. A statistical analysis of effectiveness will yield valuable data on what portions of the program work and which predictors for success on the bar exam are relevant at a particular law school.¹⁸⁷ These results will permit a law school and its faculty to adopt informed academic policies and continuously evolve both their academic support and bar exam preparation programs.

To evaluate the effectiveness of my bar exam preparation program, I decided to attempt to answer the following four questions using a statistical analysis: 1) what incoming predictors are statistically significant in predicting first-time bar exam passage at the FIU College of Law?; 2) what predictors after the first year of law school are statistically significant in predicting first-time bar exam passage at the FIU College of Law?; 3) what predictors and the end of a student's law school career are statistically significant in predicting first-time bar exam passage at the FIU College of Law?; and, 4) did the bar exam preparation program at the FIU College of Law have a statistically significant impact on FIU exceeding the Florida

¹⁸⁷ Statistical analysis of predictors for bar passage are inherently local to any law school. Grading curves, admitted student profiles, and other factors peculiar to a law school can affect the variables analyzed.

statewide average bar exam passage rate after its implementation? In order to answer the aforementioned questions, I will construct and evaluate four different statistical models – one for each question posed – using different statistical techniques, including binary logistic odds and linear regressions.

The first three of these questions deal with how a student's odds of passing their bar exam on their first attempt evolves over time from when they first enter law school, to when they finish their first year of study, to when they have interacted with my bar exam preparation program at graduation. In structuring the questions this way, I can evaluate whether my program had a statistically significant impact on incoming 1L predictors, specifically, minimizing or eliminating the impact of a low LSAT score or low undergraduate GPA.

To answer the first three questions, I will analyze student data at the point in time where we are first able to obtain that data: upon admission to the FIU College of Law, after completion of the first year of study, and upon graduation. The final question will be answered using data provided by the Florida Board of Bar Examiners regarding the FIU College of Law's raw bar passing rate as compared to the statewide average in Florida on an annual basis and only for students taking the Florida bar exam.

A. Analysis of the Evolution of Predictors for Bar Passage at FIU

Most of our students take the Florida Bar Exam as their first and often only bar exam. The Florida Board of Bar Examiners does not release raw or scaled bar exam scores that are associated with identifiable students but instead chooses to inform us of whether a student passed or failed the exam. Although at first this seems inconvenient – and it is – it does allow me to include into my dataset students that sat in other bar exam jurisdictions because the actual score received is irrelevant to the analysis. Instead, the dependent variable we are interested in is a binary one: whether the student passed their bar exam on their first attempt. Thus, in answering the first three questions, all bar exam jurisdictions were considered.

1. Methodology & Data Used in Regression

Because our dependent variable is binary, we must utilize a binary logistic odds regression rather than more common linear regression models.¹⁸⁸ The results of the binary logistic regression will not yield the expected score a student is to receive on the bar exam, but instead, the odds that the student will pass their bar exam on their first attempt based on the independent variables. From these odds, one can

¹⁸⁸ For a brief introduction to binary logistic regressions, see AN INTRODUCTION TO LOGISTIC REGRESSION, <http://www.appstate.edu/~whiteheadjc/service/logit/intro.htm> (last visited Jan. 8, 2020).

compute a simple probability of bar passage for a particular student with specific predictors.

For our analysis, I utilized the R ¹⁸⁹ statistical programming language to evaluate the data and generate the multiple models discussed *infra*. I created several scripts to parse my data file and produce textual and graphical representations of the results, which were then verified multiple times to detect errors. The sample size used for this regression was 665 bar exam takers in multiple jurisdictions that graduated from the FIU College of Law starting from May 2015 until May 2019, and who took a bar exam between July 2015 and July 2019, inclusive.

The predictors used in the logistic regressions are ones that were readily available to us from our registrar¹⁹⁰ and include the following: LSAT, undergraduate GPA, 1L GPA (student's GPA after their first year of study at the FIU College of Law), number of bar tested courses, whether the student took the Law & Procedure course, status as a minority, gender, whether the student took the Advanced Legal Analysis course, whether the student was enrolled in the part-time or full-time JD program, and the bar review company that the student used to prepare for their bar examination.

The number of bar tested courses is computed by our registrar based on the number of optional courses a student took beyond the required first-year courses that are tested on the Florida bar exam, including the MBE. Thus, a course like Civil Procedure is not counted in the number of bar tested courses a student has taken because it is a required first-year course, but the course titled Florida Constitutional Law or Evidence would be counted as those courses are neither taught in the first year nor required for graduation at the FIU College of Law.

For the statistical models that were created, I established the appropriate level of statistical significance, also known as alpha¹⁹¹, at a value of 0.05.¹⁹² This means that if we observe a p-value¹⁹³ of $p \leq 0.05$, we will reject our null hypothesis.¹⁹⁴

¹⁸⁹ For more information on R , see R : What is R ?, <https://www.r-project.org/about.html> (last visited Oct. 30, 2019).

¹⁹⁰ Our registrar, Ms. Donna Yff, is a true asset to the FIU College of Law. Ms. Yff has never wavered in support of giving her time to compiling data sets for use in my research over the years I have worked at the FIU College of Law. For that, I thank her deeply. Unfortunately, I have heard stories of other law schools having difficulty compiling meaningful data for various reasons ranging from inability to have someone actually do the work to concerns over violating FERPA. None of this need be an issue, and law schools that do not engage in this research are at a significant disadvantage in discovering what makes their students, and their programs, "tick."

¹⁹¹ Alpha is the probability of a type I error, or rejecting the null hypothesis when it is in fact true. For example, an alpha of .10 means there is a 10% chance of rejecting the null hypothesis when it was actually true. If the p-value obtained is less than alpha, we reject the null hypothesis.

¹⁹² The value of 0.05 is the generally accepted value in social science research.

¹⁹³ A p-value indicates the probability of obtaining a result at least as extreme as the one derived assuming a null hypothesis is true. P-values do not indicate whether the null hypothesis is actually true. See generally Ronald L. Wasserstein, *The ASA Statement on p-Values: Context, Process, and Purpose*, 70 THE AMERICAN STATISTICIAN 129 (2016).

¹⁹⁴ A null hypothesis, generally speaking, is a hypothesis that there are no associations or

All predictors in models were checked for multicollinearity utilizing variance inflation factors, and none presented issues of multicollinearity¹⁹⁵ in our final models. Descriptive data on all the predictors utilized in creating the models are provided in the appendix.

2. Model 1 - Incoming 1L Predictors

Our first model's goal is to explore the relationship incoming 1L predictors and first-time bar exam passage. At this point in time of a law student's career, we have the following independent variables available to us: LSAT, Undergraduate GPA, minority status, gender, and enrollment in the part- or full-time program. Our null hypothesis is that none of the independent variables had any effect on predicting bar exam success on a student's first attempt at a bar exam.

The results for this logistic regression are shown in Table 3.

Table 3 - Regression Analysis of Model 1 - Incoming 1L Data

<i>Variable</i>	<i>Estimate</i>	<i>Odds Ratio</i>	<i>Significance</i>
Intercept	-11.0349		<0.007**
LSAT	0.0646	1.067	0.007**
Undergraduate GPA	0.9228	2.516	<0.001***
Minority Status			
Minority - White	-0.3997	0.670	0.121
Gender			
Female – Male	0.1312	1.140	0.577
Enrollment Status			
Part Time – Full Time	0.3412	1.407	0.434

*Likelihood Ratio χ^2 Value: 19.3, df = 5, p=0.002***

Model Accuracy: 85.9%

****p<=0.001, **p<=0.01, *p<=0.05, ±p<=0.10*

relationships between variables. We assume this hypothesis to be true unless and until our regression indicates that it should be rejected. This occurs when the p-value of a variable is less than the alpha value selected. For our purposes, as discussed *supra*, our alpha value is 0.05, and thus any variable with a p-value less than or equal to 0.05 indicates that we should reject the null hypothesis and find that there is a relationship between the predictor variable and the outcome being predicted. See generally DOUGLAS S. SHAFER & ZHIYI ZHANG, INTRODUCTORY STATISTICS 334 (2010), <https://resources.saylor.org/wwwresources/archived/site/textbooks/Introductory%20Statistics.pdf>

¹⁹⁵ See *supra* note 36.

The regression results are statistically significant, with a χ^2 value of 19.3 with 5 degrees of freedom. The results of this regression indicate that only LSAT & Undergraduate GPA were statistically significant at the $p \leq 0.05$ level. Thus, we reject the null hypothesis for LSAT & Undergraduate GPA and conclude that both of these independent variables have an effect on the odds of first-time bar passage, and that effect is positive. Minority status, gender, and part- or full-time program enrollment have no effect on bar exam passage odds at this stage utilizing our selected alpha value.

The odds ratio for Undergraduate GPA is significantly higher than that of LSAT. While LSAT has some predictive value, the Undergraduate GPA has a much more significant impact on predicting bar exam success utilizing only incoming 1L predictors. The marginal effect of LSAT is 6.7% increased probability of bar passage for each additional point, while every tenth of a point for undergraduate GPA provides about a 15% increased probability of bar passage. This information is useful for the early identification of students that may pose a higher than average risk of an unsuccessful bar exam event. Additionally, this is information that can be relevant to those tasked with making admissions decisions to ensure that we are admitting students that we can objectively say are capable of passing their bar exam and satisfy our obligations for ABA accreditation.

3. Model 2 - Immediate Post-1L Predictors

After a student's first year in law school, we can now introduce the first-year GPA (1L GPA) into a new model to determine which of the predictors are statistically significant. We have retained all of the predictors from model 1 and simply added the 1L GPA to the model. Our null hypothesis is again that none of these predictor variables have any effect on the odds of first-time bar passage. The results for this logistic regression are shown below in Table 4.

Table 4 - Regression Analysis of Model 2 - Post-1L Data

<i>Variable</i>	<i>Estimate</i>	<i>Odds Ratio</i>	<i>Significance</i>
Intercept	-15.2148		0.002**
1L GPA	2.4790	11.930	< 0.001***
LSAT	0.0517	1.053	0.060±
Undergraduate GPA	0.7702	2.160	0.013*
Minority Status			
Minority - White	-0.4382	0.645	0.107
Gender			
Female – Male	0.1351	1.145	0.588

Enrollment Status			
Part Time – Full Time	0.4189	1.520	0.350
<i>Likelihood Ratio χ^2 Value: 83.8, $df = 6$, $p < 0.001$***</i>			
<i>Model Accuracy: 86.0%</i>			
<i>***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, $\pm p < 0.10$</i>			

The results of this regression indicate that both 1L GPA and Undergraduate GPA are statistically significant at the $p < 0.05$ level, but LSAT has now been relegated to the land of statistical insignificance under our requirement. At this point in a student's law school career, we are starting to see the importance of law school GPA.

This model tells us that 1L GPA, with an odds ratio of 11.93, is an essential initial predictor of odds of success for bar exam passage after the first year of study at the FIU College of Law. While Undergraduate GPA is predictive at this point of first-time bar exam success, its effect is attenuated relative to law school GPA.

Practically speaking, we cannot ignore LSAT at this point in time. With a p-value of 0.060, we would be hard-pressed to ignore it as a predictor, given how close it is to 0.05. At an alpha level of $p < 0.06$, we would be saying that there is only a 1% additional chance that we reject a true null hypothesis. Thus, while the p-value for LSAT is 0.06, we do consider this material in our practical analysis of program implementation at the FIU College of Law after the first year of study.

4. Model 3 - Post-3L Predictors

Upon graduating, we have additional variables to add to our model. For this model, we must substitute the 1L GPA with Law School GPA. This was done to avoid the issue of multicollinearity given that 1L GPA and Law School GPA are highly correlated and can negatively affect the model if both are utilized.¹⁹⁶ In any case, the enrollment of students in the bottom 20% of the class is always done utilizing the most recent GPA available, allowing students to grow themselves out of that tier.

The following predictors were introduced into the analysis: whether the student enrolled in Law & Procedure, whether the student enrolled in Advanced Legal Analysis, the number of bar tested courses a student has enrolled in and the commercial bar exam preparation company they utilized for bar exam preparation. Our null hypothesis is that none of these variables contributes to improving bar exam passage odds. Table 5 below shows the results of the binary logistic regression on the list of predictor variables.

¹⁹⁶ See *supra* footnote 36.

Table 5 - Regression Analysis of Model 3 - Post-3L Predictors

Variable	Estimate	Odds Ratio	Significance
Intercept	-17.4127		<0.001***
Took Law & Procedure Yes - No	1.5546	4.733	0.022*
Law School GPA	4.6871	108.537	< 0.001***
LSAT	0.0367	1.037	0.203
Undergraduate GPA	0.1808	1.198	0.590
Number of Bar Tested Courses	0.0639	1.066	0.483
Minority Status Minority - White	-0.3795	0.684	0.187
Gender Female – Male	-0.1019	0.903	0.699
Had Advanced Legal Analysis Yes – No	0.7550	2.128	0.039*
Enrollment Status Part Time – Full Time	0.4774	1.612	0.325
Bar Preparation Company			
Company 1 –	-0.4934	0.611	0.271
Company 3			
Company 2 –	-1.0962	0.334	0.058±
Company 3			

Likelihood Ratio χ^2 Value: 116, $df = 11$, $p < 0.001$ ***

Model Accuracy: 87.4%

*** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$, ± $p \leq 0.10$

The regression results indicate that the following predictors are statistically significant in predicting bar exam passage with a p-value of $p < 0.05$: graduating law school GPA, taking the final semester Law & Procedure course, and taking the penultimate semester Advanced Legal Analysis course. Thus, we reject the null hypothesis for these variables. These three variables were positively correlated with bar exam passage odds.

Undergraduate GPA, LSAT score, status as a minority, gender, the bar review course selected, and being enrolled in the part-time program were statistically insignificant at the $p < 0.05$ level. Thus, we fail to reject the null hypothesis that

these variables do not play a role in predicting bar passage during a student's final time at the FIU College of Law.

Several of these results are fascinating. First, by far, the best predictor of first-time bar passage is, unsurprisingly, law school graduating GPA. Its p-value of $p < 0.001$ and odds ratio of 108.537 mean it is both statistically significant and has a remarkably high effect on the odds of bar passage. This is not the first study to find this positive effect.¹⁹⁷

Second, with an odds ratio of 4.733, taking Law & Procedure in the final semester means that students that enrolled in the Law & Procedure course had much higher odds of passing the bar exam on their first attempt than those that did not enroll in the course, although the effect is not as significant as graduating law school GPA. However, the difference is quite significant towards the lower end of the graduating law school GPA range, as will be discussed below and shown in Figure 7 below.

Third, students that enrolled in the Advanced Legal Analysis course, with an odds ratio of 2.128, correlates positively with passing the bar exam on a first attempt as compared to those that did not take the course. While the effect is not as significant as enrollment in the Law & Procedure course, Advanced Legal Analysis is designed as a gentler introduction to the bar exam. This suggests that Advanced Legal Analysis is useful for the bottom 20% of the class that must take the course in their penultimate semester.

Fourth, unlike several other published articles on bar passage predictors,¹⁹⁸ LSAT is not statistically significant at the end of a law student's time at the FIU College of Law in predicting first-time bar exam passage. This is a significant departure from the p-value obtained after the first year of study at $p = 0.06$ for which an argument for statistical significance could be plausibly entertained. At a p-value of 0.203, no real colorable argument can be sustained for its significance. What changed? I believe that the emphasis on skills development with particular emphasis on noncognitive skills development during a student's engagement with my bar exam preparation program has contributed to promoting "academic performance" on the bar exam. Through effective pedagogy and program design, the various noncognitive factors can be developed, and the predictive power of the LSAT significantly diminished or altogether obliterated. Thus, the bar exam preparation program at the FIU College of Law works for all students irrespective of LSAT score and graduating law school GPA.

Lastly, Company 3's bar review program at FIU had a negative impact on a student's probability of bar passage when a student selected it over Company 2. This was not true for the Company 1 bar review program. We were aware of this issue with Company 3's performance when it came to our students early on. Earlier

¹⁹⁷ See *supra* note 33.

¹⁹⁸ *Id.*

internal regressions showed the same result, and it was decided that my program would no longer work with Company 3. After the July 2018 bar exam, no FIU College of Law students have used the Company 3 bar preparation course, and instead, they have worked solely with Company 1 and Company 2.¹⁹⁹

Figure 7 below is a graph of the probability of a student passing their bar exam on their first attempt based on their graduating law school GPA. The curve in orange shows the probability of passing if the student took the Law & Procedure course. The curve in green shows the probability of passing if the student did *not* take the Law & Procedure course.

The graph shows that there is a substantial gap in the probability of passing the bar exam for GPAs below 3.0 for students that did not take Law & Procedure. That gap narrows quickly above a graduating law school GPA of 3.4. At a graduating GPA of 3.0, a student that takes Law & Procedure has a 95.5% probability of passing the bar exam on their first attempt, whereas a student that does not has a probability of only 81.8%, a difference of 13.7 percentage points.

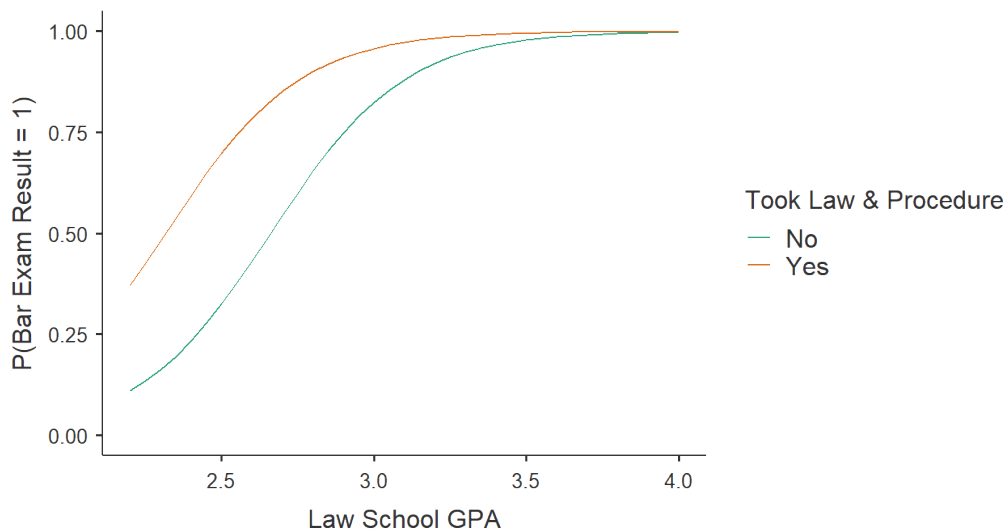


Figure 7 - Sigmoid Functions Comparing Probability of Passing Bar Exam for Students With/Without Law & Procedure

Figure 8 below is a graph of the functions showing the probability of a student passing the bar exam on their first attempt based on their graduating law school

¹⁹⁹ It must be noted that this result is specific to the FIU College of Law. For some undetermined reason, Company 3 does not work as well for our students as Company 1 or Company 2. Company 3 may work very well for other law schools, but I am not privy to those statistics. Based on the information I had in the past, I felt it prudent to recommend to our students only products that were statistically proven to deliver results for our unique demographic. The results of this regression reassure me that excluding Company 3 was the correct decision.

GPA and based on whether the student was enrolled in Advanced Legal Analysis. Recall that Advanced Legal Analysis is for the benefit of the bottom 20% of the class at the FIU College of Law. The dataset utilized in these regressions identifies the bottom 20% as beginning with a law school graduating GPA of approximately 2.6 and below and with a mean law school graduating GPA of 2.54. The graph shows that at these GPA ranges for the bottom 20%, those students are benefiting significantly from Advanced Legal Analysis. Students with even slightly higher GPAs have the marginal benefit of the class reduced significantly and quickly, eventually approaching zero – or no benefit – above a 3.0 GPA. Thus, Advanced Legal Analysis is working as intended: it is targeting the students that need skills development the most without being overinclusive.

Notably, and perhaps providing some explanation for this result, students enrolled in the Advanced Legal Analysis course passed at a rate of 72.2%. However, before the course was created, the passage rate for first-time test-takers in the bottom 20% at the FIU College of Law was a mere 58.6%,²⁰⁰ a difference of 13.6 percentage points. Anecdotally it appears as though the course has served its purpose of increasing the bar passage rate of the bottom 20% of the class, and this statistical analysis verifies that result.

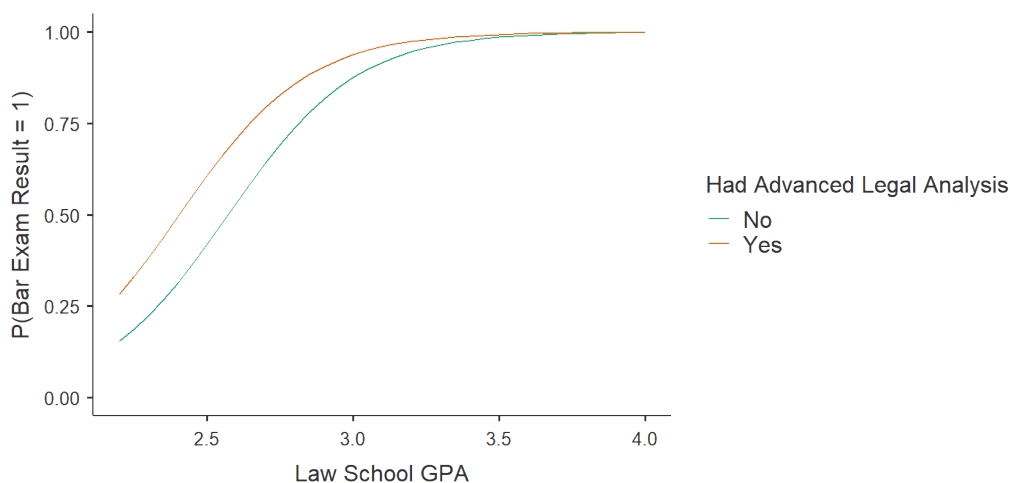


Figure 8 - Sigmoid Functions Comparing Probability of Passing Bar Exam for Student With/Without Advanced Legal Analysis

The most stunning visualization of these results is shown in Figure 9 below. These two sigmoid function graphs show the probability of passing the bar exam for students that either had or did not have one or both of the courses in my program:

²⁰⁰ Data on file with the author.

Advanced Legal Analysis and Law & Procedure. The chart on the left shows the pass probabilities for students that did *not* have Advanced Legal Analysis and the chart on the right for students that did. The curves within each chart indicate whether a student took Law & Procedure.

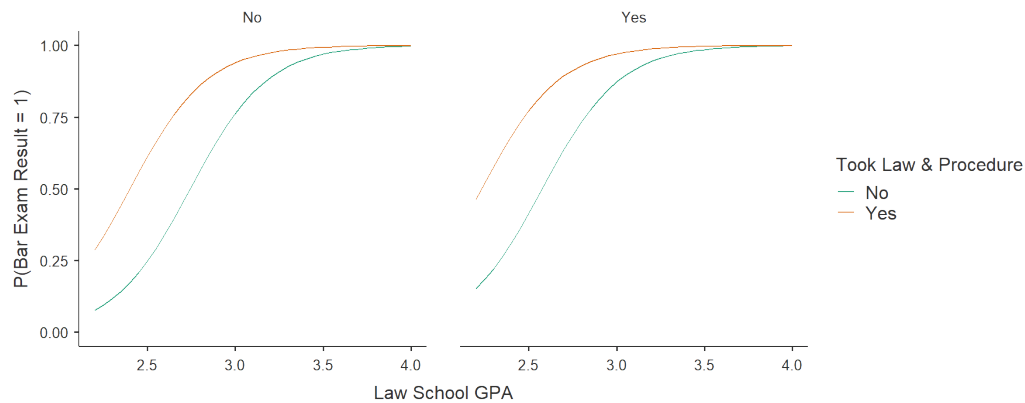


Figure 9 - Sigmoid Functions Comparing Probability of Passing Bar Exam for Students With/Without Advanced Legal Analysis and With/Without Law & Procedure

If you focus on the 2.65 Law School GPA, you will notice that for students that took both Advanced Legal Analysis and Law & Procedure, their probability of passing the bar exam on their first attempt is 86.1%. For students in that range that do not take both courses, their probability of passage is a mere 38.1%, a difference of a whopping 48 percentage points. For students in that range that took Law & Procedure but not Advanced Legal Analysis, their probability of passing was 74.5%. Since our target students for skills development are in this 2.65 and below range (approximately the bottom 20% of the class), this model shows that our targeting of these students has dramatically increased the odds of bar passage. The benefit to students increases the further down they are from a 2.65 GPA.

Figure 10 below shows the graphs of each bar review company that has been utilized at the FIU College of Law plotted against the probability of bar passage based on the regression results shown in Table 5. While the regression results showed that utilizing Company 3 as opposed to Company 2 was statistically insignificant because of a p -value of 0.058, such tiny deviations from statistical significance cannot be ignored in practice.²⁰¹ As discussed previously, Company 2 underperformed as compared to Company 1 and Company 3. The difference in performance was stark. At a graduating GPA of 2.65, students had only a 52.6%

²⁰¹ I would be hard pressed to justify why I should not make informed policy decisions using p -values of $p \leq 0.058$, but only at $p \leq 0.05$ -- a rounding error in some circles.

chance of bar passage with Company 2, compared to 67.0% and 76.9% with Company 1 and Company 3, respectively. Thus, the decision to exclude Company 2 from campus was based on my thorough statistical review, and I felt it was the correct decision for my students.

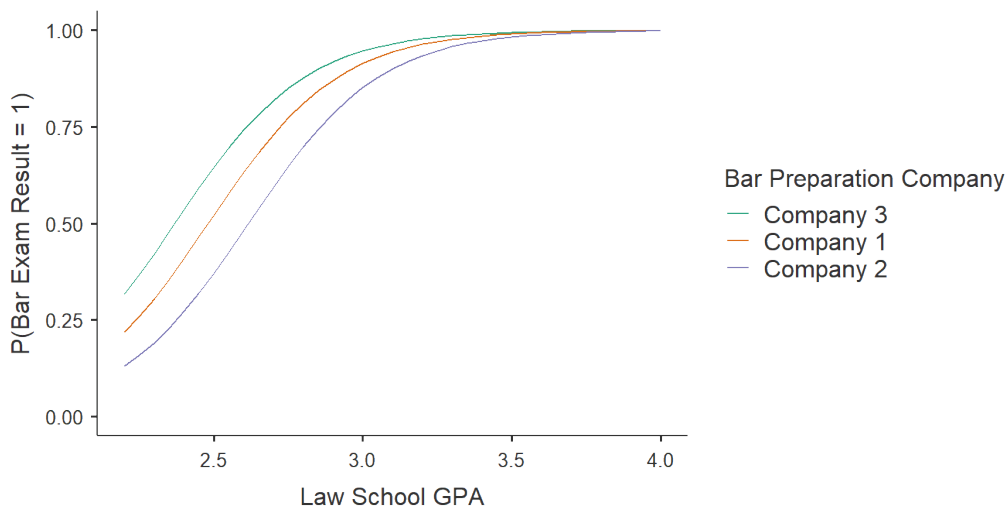


Figure 10 - Sigmoid Functions Comparing Probability of Passing Bar Exam by Bar Review Course

5. Conclusion

From these results, we can conclude that the bar exam preparation program as designed and implemented at the FIU College of Law has been successful. As more of our students take the course and attempt their first bar exam, the dataset will be updated, and regressions rerun to identify issues that need attention and modification to the course. For now, though, it seems as though Advanced Legal Analysis and Law & Procedure will not be fundamentally changed unless and until data begins to dictate otherwise, and the bottom 20% of the class will continue to be required to take the course. It is results of data such as this that has encouraged students in all GPA ranges to take Law & Procedure at FIU despite it only being required for the bottom 20% of the graduating class. Even with a small number of students not taking Law & Procedure, the contrast was so stark as to be statistically significant.

The same holds true for Advanced Legal Analysis. This course has been shown to help our students maximize their odds of passing their bar exam on their first attempt. Unlike Law & Procedure, however, I have plans to develop this class

further based on data trends I have noticed on the bar exam over the past several administrations.

I am therefore comfortable in concluding that my bar exam preparation program at the FIU College of Law is statistically significant in helping our students pass their bar exam on their first attempt, particularly for those students in the bottom 20% of their class.

B. Linear Regression Analysis of FIU Performance on Exceeding Florida Bar Exam Statewide Average

I decided to look at whether the new implementation of the final semester bar exam preparation course (Law & Procedure) had a statistically significant effect on the rate at which we exceeded or underperformed as compared to the state average in Florida. I also decided to inquire as to whether the 1-point increase in the median LSAT score for our classes taking the bar exam since the 2015 bar exams contributed to our performance on the Florida bar exam. Based on the results of the binary logistic regressions above, I suspected this would have no statistically significant impact.

Lastly, I decided to inquire as to whether the number of transfer students that transferred into the FIU College of Law had any statistically significant effect on the rate at which we exceeded the Florida statewide average. I decide to include this variable in my model because, at a recent SEALS conference, a professor from another law school argued vigorously that the only reason FIU was doing well on the bar exam was because of the number of transfer students FIU was accepting from other law schools.²⁰²

Thus, the null hypothesis is that the implementation of the Law & Procedure course, the increase in median LSAT, and the number of students transferring into FIU had no effect on the dependent variables of our raw bar passage rate or the amount by which we exceed or underperformed as compared to the state average in Florida. Since the dependent variable being regressed are continuous, we utilized a linear regression for this analysis.

1. Methodology & Data Used in Regression

²⁰² This argument is categorically specious given what I know about my students. The reason we are doing well on the bar exam is because we have increased the passage rate of the bottom 20% and 40% of our students. For example, on the July 2019 bar exam, only 1 of my students in the bottom 20% of the class failed a bar exam. The other students that failed were from the upper 80% of the class, and the reasons for failure were varied, ranging from deaths of immediate family members to flat-out disengaging with the program.

For this regression, we utilized the dependent variable of the percentage points by which the FIU College of Law exceeded the statewide average for first-time test takers on the Florida bar exam (Exceed Percent).

The input variables utilized consist of a binary variable identifying whether the Law & Procedure course was implemented and utilized by the students taking a particular bar exam administration (L&P Implemented), the median LSAT for the class taking the particular bar exam, and the number of transfer students admitted that took the particular bar exam.²⁰³

The sample size for this regression was 21 bar exam administrations, beginning from July 2009 until July 2019. This period covers 9 bar exam administrations where Law & Procedure was implemented and 12 where Law & Procedure was not implemented.

The data showing our raw passage rates and the rates at which we exceed the Florida statewide average on the Florida bar exam is shown in Table 6 and the histogram of the dependent variable is shown in Table 7. This data, and particularly the histogram, reinforces my belief of a statistically significant and positive correlation for the percentage points at which we exceeded the Florida statewide average on the bar exam. The histogram depicting the amount by which the FIU College of Law exceeded the Florida bar exam statewide average shows a clear positive shift after implementation of Law & Procedure.

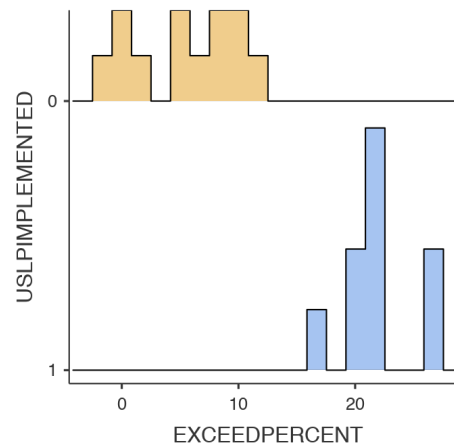
Table 6 - FIU Raw Bar Passage and Florida Statewide Averages

<i>Bar Administration</i>	<i>Florida Statewide Average</i>	<i>FIU Average</i>	<i>FIU Exceeds Statewide Average</i>	<i>FIU's Rank Among Florida Schools</i>	<i>New Preparation Course Effect</i>
<i>July 2009</i>	80.0	80.9	+0.09	7	No
<i>February 2010</i>	72.2	71.4	-0.8	5	No
<i>July 2010</i>	79.2	84.2	+5.0	4	No
<i>February 2011</i>	79.5	88.2	+8.7	2	No
<i>July 2011</i>	80.1	89.6	+9.5	1	No
<i>February 2012</i>	76.2	85.7	+9.5	3	No
<i>July 2012</i>	80.2	80.3	+0.01	7	No
<i>February 2013</i>	80.2	91.7	+11.5	4	No

²⁰³ This data is all publically accessible via the Florida Board of Bar Examiner's website as well as the ABA's required disclosures website.

July 2013	77.2	82.8	+5.6	4	No
February 2014	72.9	81.3	+8.4	3	No
July 2014	71.8	78.2	+6.4	4	No
February 2015	64.3	63	-1.3	9	No
July 2015	68.9	89	+20.1	1	Yes
February 2016	58.4	84.6	+26.2	1	Yes
July 2016	68.2	87.5	+19.3	1	Yes
February 2017	57.7	78.9	+11.2	2	Yes
July 2017	71.3	87.8	+16.5	1	Yes
February 2018	57.9	85	+27.1	1	Yes
July 2018	67.2	88.1	+20.9	1	Yes
February 2019	57.8	80	+22.2	2	Yes
July 2019	73.9	95.7	+21.8	1	Yes

Table 7 - Histogram of Dependent Variable



2. Analysis of Regression Results

Table 8 below show the results of the regression between the dependent variable of the amount by which we exceeded the relevant Florida statewide bar exam average and the independent variables of the implementation of the L&P course, median LSAT, and the number of transfer students taking the exam.

Table 8 - Linear Regression Results of Percentage Points

Predictor	Estimate	t-test	Significance
Law & Procedure Implemented Yes - No	22.6923	4.856	<0.001***
Median LSAT	-7.1909	-1.755	0.097
# of Transfer Students Taking Exam	0.0385	0.141	0.889
$R = 0.920, R^2 = 0.846, \text{Adjusted } R^2 = 0.818$ $F(3,17) = 31.0, p < 0.001$ ***p<=0.001, **p<=0.01, *p<=0.05			

Table 8 shows that the implementation of the L&P course is statistically significant at the $p<0.001$ level, with a positive coefficient of 22.6923. The adjusted R^2 signifies that the implementation of the L&P course accounted for 81.8% of the variability in the increased rate at which we exceeded the Florida statewide average for first-time bar exam takers. Thus, we reject the null hypothesis and conclude the implementation of the Law and Procedure course positively affected the rate by which we exceeded the Florida statewide average for first-time bar exam takers.

The same can not be said for the median LSAT of the class and the number of students that transferred into FIU and sat for the Florida bar exam. Those two variables are *not* statistically significant and we fail to reject the null hypothesis. I am confident in stating that the argument raised by the professor at the conference lacks any merit whatsoever.

VI. CONCLUSION

Creating an effective law school bar exam preparation program is a heavy lift. Limited resources and often unreasonable expectations make the task even more difficult. For far too long have we been stuck with the idea that law school GPA and LSAT are the crystal balls of bar exam preparation. While undergraduate GPA and LSAT are initial predictors of first-time bar exam passage, properly designed and implemented programs can eliminate the predictive value of those numbers. To continue to believe so suggests that law school bar exam preparation programs are devoid of value or significant impact. This is not to say that law school grades are meaningless, far from it. But with an effective theory of design, implementation, and proper pedagogical techniques by highly qualified bar exam and academic support faculty, law schools can contribute meaningfully to all students' chances of

passing their bar exam outside of the doctrinal classroom, and statistics can bear that out when done correctly.

A successful law school bar preparation program targets the development of cognitive and noncognitive skills in all students with a focus on the underperforming demographic. By mitigating the effects of stereotype threat through proper measures, all students, however, can be engaged in this endeavor with measurable success. Far too many believe that law school bar exam preparation programs should be a review of law school capped off with a lighted candle for a prayer. The program at the FIU College of Law chose to take a different path with noticeable results: develop cognitive and noncognitive skills needed for the bar exam with an emphasis on noncognitive skill development in the final year. It certainly helped that our students were willing to listen and, infinitely more important, willing to work hard to achieve their goals of becoming licensed attorneys.

Law school bar exam preparation programs are better served if we stop thinking of bar exam preparation as the attempt by professors to cram as much knowledge into a student's mind as possible. It's no surprise that the California bar exam study found that the number of bar tested courses a student took in law school had not statistically significant relationship to their bar exam score. Those courses focus on doctrine rather than skills development. We, as professors, must revert to the original aims of teaching: being facilitators of learning rather than sages on all matters legal. We are shepherds guiding others into the legal profession. Learning is a journey of discovery, and we, as teachers, must only light the way to the destination. Our students must be ones that learn to walk the path.

VII. APPENDIX

Table 9 - Descriptive data of LSAT, UGPA, Law School GPA, and Bar Tested Courses

	LSAT	Undergraduate GPA	1L GPA	Law School GPA	No. Bar Tested Courses Taken
Mean	154	3.41	2.85	2.99	5.50
Median	156	3.54	2.84	2.98	5
Maximum	168	4.09	4.00	3.97	2
Minimum	138	1.96	2.00	2.22	11
25 th Percentile	150	3.12	2.54	2.73	4
50 th Percentile	156	3.54	2.84	2.98	5
75 th Percentile	157	3.73	3.14	3.20	6

Table 10 - Descriptive data of Law & Procedure

Took Law & Procedure	Number Taking	Percentage of Total	Number of Students Passing Bar Exam	Percentage Passing Bar Exam
Yes	645	97.0%	554	86.4%
No	20	3.0%	14	70.0%

Table 11 - Descriptive data of Advanced Legal Analysis

Took Advanced Legal Analysis	Number Taking	Percentage of Total	Number of Students Passing Bar Exam	Percentage Passing Bar Exam

Yes	74	11.1%	54	73.0%
No	591	88.9%	517	87.5%

Table 12 - Descriptive data of Bar Exam Company Performance

Bar Exam Preparation Company	Number Taking	Percentage of Total	Number of Students Passing Bar Exam	Percentage Passing Bar Exam
Company 1	539	81.1%	466	86.5%
Company 2	54	8.1%	42	77.7%
Company 3	72	10.8%	63	87.5%

Table 13 - Descriptive data of Performance by Gender

Gender	Number Taking	Percentage of Total	Number of Students Passing Bar Exam	Percentage Passing Bar Exam
Male	307	46.2%	260	84.7%
Female	358	53.8%	311	86.9%

Table 14 - Descriptive data of Performance by Minority Status

Minority Status	Number Taking	Percentage of Total	Number of Students Passing Bar Exam	Percentage Passing Bar Exam
White, Non-Minority	235	35.3%	210	89.4%
Non-White, Minority	430	64.7%	361	84.0%

Table 15 - Descriptive data of Performance by Full or Part-Time Enrollment

	Number Taking	Percentage of Total	Number of Students Passing Bar Exam	Percentage Passing Bar Exam

<i>Full Time</i>	609	91.6%	522	85.7%
<i>Part Time</i>	56	8.4%	49	87.5%