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“FEWER” BUSINESS STUDENTS LEFT BEHIND:
USING KOLB’S MODEL OF LEARNING
PREFERENCES IN AN UNDERGRADUATE LAW
COURSE

by

Regina M. Robson*

INTRODUCTION

One of the most common syllabus objectives of the undergraduate business law course is to teach students to “think like lawyers” – a somewhat amorphous goal that ranges from evaluating the impact of law on business scenarios to the more ambitious aim of optimizing critical thinking skills. Beyond the explicit objective to teach students to “think like lawyers,” is the implicit assumption that business students will also “learn like lawyers” – that they will adopt the learning style, and adapt to teaching style, that predominates in law schools.

This article examines how particular learning preferences impact both the study – and teaching – of law at the undergraduate level. Specifically, it describes the learning styles identified by educational psychologist, David Kolb, and explores how the learning preferences of students and faculty may impact undergraduate business law classes. It argues that in order to accommodate the diverse learning styles characteristic of an undergraduate population, instructors in law must be willing to diverge from their preferred teaching styles and incorporate pedagogical

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techniques that accommodate diverse learning preferences. The article also suggests pedagogical approaches that might be used to reach students whose preferred learning method is not congruent with the learning preference dominant among law students and law professors. The paper concludes that a conscious consideration of both learning preferences – and teaching preferences – can ensure that in the race to enhance critical thinking skills, “fewer” business students are left behind.

LEARNING STYLES: LEARNING HOW WE LEARN

Learning Preferences

There are few areas in pedagogy literature of greater interest – or controversy – than the topic of what constitutes “real” learning.¹ Educational theory posits distinct hierarchies of learning - a progression that involves not only the ability to recall information, but the capability of analyzing it, integrating it and ultimately synthesizing it to solve problems and generate new insights.²

Contrary to popular belief, a number of attributes affect a person’s penchant for learning; “being smart” is not enough. The quality of learning – whether information is “absorbed” and whether it is sufficiently integrated to be available for innovation or problem solving - is affected by a number of attributes including but not limited to personality, intelligence, social motivation, instructional environment and information management preferences.³

Although evidence suggests that personality and intelligence are relatively constant throughout life,⁴ the literature does suggest that the methods by which individuals prefer to “manage” information – how they acquire it and process it - are more fluid and can be affected by pedagogical techniques⁵ and the student’s subjective understanding of “how they learn best.”⁶

The definition of “Learning Style” is somewhat elastic,⁷ encompassing not only *how* individuals learn,⁸ but also how they *prefer* to learn.⁹ Since most determinations of learning style are based on self-assessment,¹⁰ it is more accurate to think of learning style as a preference, rather than an imperative. As one commentator noted, “Each individual will adopt an approach to learning with which they are most comfortable and in doing so leave behind the approaches with which they are less comfortable.”¹¹

While individuals frequently utilize more than one learning style depending on the task,¹² a student’s meta-cognitive awareness of her dominant learning style can affect classroom engagement and academic success.¹³

If there is no consensus about how to define a preferred learning style, there is even less agreement on how best to describe such preferences. Scholarly literature posits the existence of numerous “models” for distinguishing learning preferences.¹⁴ Theories abound, buttressed by research in psychology,¹⁵ neuroscience,¹⁶ and the front-line experience of teachers.¹⁷ Although such theories are not necessarily mutually exclusive, there is no overarching framework to unite such disparate theories. Moreover, there is significant academic criticism of the instruments used to determine learning styles.¹⁸ Many of the instruments rely on self-identification as a basis for determining learning preferences,¹⁹ with limited empirical research to determine if there is a correlation between self-proclaimed learning style and the student’s actual mode of learning.²⁰ Another source of criticism is the sale of measurement instruments²¹ accompanied by consulting opportunities for the proponents of such instruments.²²

Beyond issues of data validation and potential conflict of interest, the most potentially pernicious risk of the adoption of a learning style model is the “pigeon-hole effect” – the risk that students will be seen *only* as intuitives, visual learners, kinesthetics or a host of other “types.”²³ Such

ham-handed applications ignore not only the individuality of students but also ignore the use of models as indicative of a *preference* – not an immutable characteristic.

Despite these shortcomings, however, a conscious consideration of different learning styles – albeit imprecisely defined – benefits students. A study that examined the relationship between learning styles and academic success found that students who were cognizant of their own learning style had higher grade point averages than students who were not aware of their learning preferences.²⁴ Understanding what techniques “feel comfortable” can offer students the opportunity to adjust the manner in which they study and how they approach a task.

Research also suggests that teaching techniques that acknowledge and engage different learning modalities benefit *all* students, not only those students whose learning preference is disparate from the predominant learning style of the class. During the process of learning, individuals cycle through different phases of learning: experiencing, reflecting, analyzing and applying information.²⁵ “Deep learning” occurs only when individuals venture out from their preferred learning styles and use multiple modes of information acquisition and processing.²⁶

The Kolb Learning Model

Teachers seeking to adopt pedagogical techniques that resonate with students with diverse learning styles face practical challenges. The nature of some disciplines dictates that a particular learning style will predominate. Moreover, research suggests that instructors tend to *teach* using techniques which are compatible with the instructor’s own learning style.²⁷ Consequently, instructors benefit from understanding both the learning styles of their students and their *own* learning preferences.

The Kolbian model of learning preferences provides a practical “lens” through which to understand learning modalities and to evaluate pedagogical techniques. The Kolb model is a refinement of experiential learning theory – a pedagogical theory that posits that learning occurs when an individual transforms experience into knowledge.²⁸ For Kolb and other experiential learning theorists,²⁹ learning is the result of “*grasping and transforming* experience.”³⁰

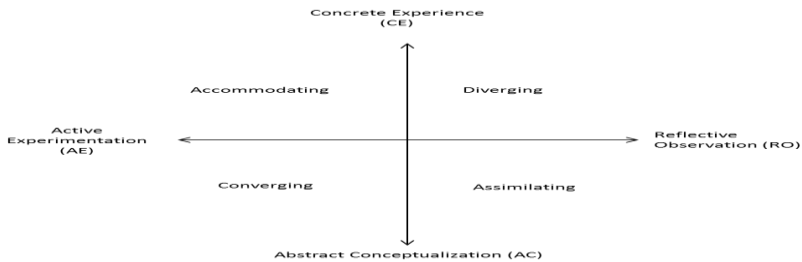
Individuals have preferred methods for “grasping and transforming” information (collectively “information management”). Both are critical for true learning to occur.³¹ In Kolbian terms, an individual’s preferred method of information acquisition occurs along a continuum (the “Perception Continuum”) that runs from Abstract Conceptualization (“AC”) through Concrete Experience (“CE”).³² At one end of the continuum, CE, are students whose preferred method for acquiring information is sensory and intuitive, rather than reflective.³³ For such students information acquisition may be influenced by feelings about the professor, the class or the work group.³⁴ Simply stated, “CE learners focus on the people portion of learning.”³⁵

In contrast to CE learners, AC students are “theorists” who acquire information by organizing and categorizing it.³⁶ While adept at classifying information, AC learners may have difficulty applying theory to practice.³⁷

“Processing” information is as important as acquiring information and also proceeds along a continuum (the “Processing Continuum”). “Processing” information is characterized by internalization, making it available for generating new insights and problem solving. In Kolb’s model, an individual’s preferred mode of processing extends from Active Experimentation (“AE”) through Reflective Observation (“RO”).³⁸ Similar to CE students who acquire information through hands-on experiences, AE learners gain deeper appreciation of information through application and

experimentation.³⁹ They are application driven and learn best through an iterative process of “discovery.”⁴⁰ Conversely, RO learners prefer to process information by “watching” rather than doing.⁴¹ Such learners generally require ample time for reflection as they try to structure a theory that accommodates the information they have observed.⁴²

Student preferences for acquiring and processing information are not interdependent. For example, a student whose preferred mode of acquiring information might be through a tactile experience, might nonetheless internalize such information through the process of reflection rather than experimentation. Kolbian theorists typically present these options in graph form, with the Perception Continuum plotted on the “y” axis and the Processing Continuum plotted on the “x” axis.



The quadrants formed by graphing of the Perception Continuum and the Processing Continuum describe four discrete learning styles, which Kolb identifies as Assimilating, Converging, Diverging and Accommodating.⁴³

Assimilating learners are “thinker-watchers” combining a preference for Reflective Observation and Abstract Conceptualization.⁴⁴ Such students are “ typically analytic learners, who absorb and process information sequentially.”⁴⁵

They tend to be less interested in people and more interested in ideas and abstract concepts.⁴⁶ Assimilators tend to ask the question “what” and benefit from time to reflect.⁴⁷ In a classroom, they are copious note takers and may find discussion distracting.⁴⁸ They are adept at ordering and categorizing information in a logical framework.⁴⁹ Because they tend to focus on logic rather than social interactions, Assimilating learners may create solutions that are hard to implement.⁵⁰

A student with a Converging learning style prefers to acquire information through thinking and reflection (AC) and process it through active experimentation (AE).⁵¹ Convergencers gather information through trial and error in the context of specific problems.⁵² Dubbed “thinker-doers,”⁵³ such learners are application focused, valuing the use of theories, not for their own sake, but in the context of problem solving.⁵⁴ Less interested in people or interpersonal interaction, these learners prefer simulations, laboratory assignments and practical applications.⁵⁵

An individual with a Diverging learning style prefers to acquire information through concrete experience and process it through reflective observation.⁵⁶ Kolb labels this style as “diverging” because such learners tend to function best in situations requiring idea generation and out-of-the-box thinking.⁵⁷ Divergers frequently ask, “why?” and prefer to see how new material relates to other information.⁵⁸ Such students are motivated to learn only when they understand the purpose of the learning.⁵⁹ They prefer to work in groups⁶⁰ and benefit from personal feedback.⁶¹

Individuals with an Accommodating learning style both acquire and process information through hands-on experiences.⁶² They are action oriented and sometimes eschew logical analysis – to the chagrin of Assimilators⁶³ - relying instead on intuition or on other people as a source of information.⁶⁴ Accommodating Learners frequently ask “what if” and focus on applying information to solve

problems.⁶⁵ In the classroom, such learners prefer to collaborate with classmates, do field work and test out different approaches to problem solving.⁶⁶

While Kolbian theory posits the existence of preferred learning styles, it rejects the notion that such preferences are static. To the contrary, Kolb argues that experiential learning occurs only when an individual “touches all the bases” by revisiting knowledge through all modes of information acquisition and processing.⁶⁷ In Kolbian theory, effective problem solving occurs when an individual fully integrates the four learning modalities.⁶⁸ Consequently, pedagogical techniques that encourage students to explore all learning styles benefit all students, not just those with the non-dominant learning style.

Learning Like Lawyers

The few studies that examine the correlation of learning styles with law school populations have found that Assimilating and Converging learners predominate over Accommodating and Diverging learners,⁶⁹ despite the fact that there is some evidence to suggest that the Accommodating learning style is the predominant style within the population as a whole.⁷⁰

If Assimilating and Converging learning styles predominate among law students, it should also be no surprise that the front of the classroom is usually occupied by an instructor whose learning style mirrors that of the class. In a recent survey eighty-one percent of law school faculty were identified as Assimilating learners and nineteen percent as Converging learners.⁷¹ No law school faculty member represented any other learning style.⁷² Not surprisingly, an analysis of the syllabi of the law courses offered at the same university contains language that suggests an emphasis on reflection and abstract conceptualization over concrete experiences and active experimentation.⁷³ Only twenty-five percent of the course

syllabi included projects or exercises that suggested information acquisition through Active Experimentation and only six of the forty-four courses relied on pedagogical techniques emphasizing Concrete Experience as a mode of information acquisition.⁷⁴

The research on law schools has interesting implications for teaching law as part of an undergraduate curriculum. While the author has found no study examining undergraduate business law courses, it is not an illogical extrapolation to assume that law school trained professors teaching at the undergraduate level have a similar learning preference to their colleagues who teach at law schools.

Considering the learning preferences of faculty is not simply an “academic” exercise. There is research to suggest that students’ academic performance is better when their learning styles are congruent with that of their instructors.⁷⁵ This may present challenges when teaching law at the undergraduate level where presumably the learning preferences of the student population differ from the style predominant in law school. While survey data conducted on MBA students suggests that graduate business students have learning styles similar to law students,⁷⁶ such data is not necessarily representative of undergraduate business majors whose career choices may be more fluid or for the undergraduate population as a whole.

While some studies found that as in law school, Assimilators predominated in business schools,⁷⁷ other studies of undergraduate business students found that Convergents were most common followed closely by Assimilators and Divergers.⁷⁸ Moreover, within various business majors, a particular style might predominate. For example, one study reported that the Converging style predominated among accounting majors.⁷⁹ Assimilators were found to be the predominant style among finance majors;⁸⁰ other studies found Divergers⁸¹ and Accommodators prevalent among marketing and sales

professionals.⁸² A pedagogy that may be adequate – or even preferred – for teaching law students and other Assimilators may ignore students whose learning style is Accommodating or Diverging.

Learning Like Art Students

Is a pedagogy focused on Assimilators and Convergents fundamentally different from teaching aimed at Divergers and Accommodators? A comparison of pedagogical approaches in a graduate management class with the techniques used in an art class is illuminating. Accommodating and Diverging learning styles are the predominate learning styles both among art students and art instructors.⁸³ In contrast, the MBA classroom, like the law school class, is dominated by instructors whose preferred learning style is Assimilating and Converging.⁸⁴

MBA courses were described as “text-driven,” focusing on materials that “deliver an authoritative scientific discourse.”⁸⁵ Classes were described as “discursive”⁸⁶ - with each topic being treated sequentially with little “doubling back.” Instructor emphasis was on “telling,”⁸⁷ emphasizing theory over demonstration.⁸⁸ Sections were also described as “batched,”⁸⁹ with limited individualized feedback.

In contrast, classes for art students were described as “demo-practice-production-critique;” “recursive;” “showing;” and “individualized.”⁹⁰ Art classes frequently took an “inside-out” approach, with students experiencing multiple aspects of a subject simultaneously.⁹¹ Classes were distinguished by individualized attention and feedback.⁹²

TEACHING STRATEGIES

Comparing pedagogic techniques at the extreme – it is difficult to imagine two more diverse disciplines that art and

business – suggests some interesting strategies to reach more students in the legal environment class.

Pedagogy scholarship is replete with descriptions of mock trials, contract drafting exercises or service learning courses designed to make students participants in their own learning. Whether presented in the Kolbian “language” or under the more general rubric of “active learning,” such techniques, by requiring “hands-on” activity, group work, or real world applications are likely to have strong appeal for Divergers and Accommodators. However, courses at the undergraduate level rarely have time for more than one active learning exercise. Such techniques may engage diverse learners temporarily, only to leave them floundering when the class returns to the more assimilating/converging approach. It may be more beneficial – and more sustainable – to “drizzle” approaches geared to such learners throughout each topic. In a series of small adjustments, faculty may be able to engage – and retain – students whose learning preferences are frequently unaddressed. A small sampling of techniques might serve to encourage new approaches to teaching; each has the virtue of being easy to implement and adaptable to large classes.

Learning Like an “Arts” Major: A conscious effort to “import” the liberal arts into the business law classroom can pay dividends.⁹³ Presenting cases as “stories” whose endings have been determined by the courts can engage the “people focus” of Divergers and Accommodators. “Rehumanizing” parties by using names rather than the procedural labels of “plaintiff” and “defendant,” and providing a “backstory” may engage emotion and provide context for legal principles.⁹⁴ Literature can also illuminate cases, helping students to understand the underlying values that animate the law.⁹⁵ Even “war stories” and personal anecdotes can help students relate to material.⁹⁶

Drawing Pictures: If a picture truly is worth a thousand words, “diagramming” concepts in law could prove

remarkably efficient. Professor Jacobson provides a graphic description of a “properly pleaded complaint” under Section 8(a) of the rules of Civil Procedure and taps into another way of learning.⁹⁷ Utilizing cases or examples with a strong visual component can also help students whose preferred method for information acquisition is visual or tactile.⁹⁸ Even the ubiquitous PowerPoint can become “art” by adding color, diagrams and sound.⁹⁹

Use Media: Harness music and song in service of the law. Professor Mark DeAngelis, for example, has mined the creative and visual arts for examples that illustrate legal concepts.¹⁰⁰ Law “lessons” reinforce the definitions of legal terms through a combination of rhyme, music and humor that appeals to all learning styles. It is hard to imagine the concept of a holder in due course being interesting, but the *Holder in Due Course Blues* explains the concept in a way that is accessible and meaningful to undergraduates.¹⁰¹

Eat, Drink and Move Around: Researchers found that over twenty-five percent of law students preferred to eat or drink when learning something new.¹⁰² While such accommodations are not always feasible in the classroom, allowing students to snack may create a relaxed environment conducive to learning while helping students to maintain energy levels.¹⁰³ Learners who acquire information from concrete experiences and process it through active experimentation frequently benefit from field trips and interviews.¹⁰⁴ Yet, even brief periods of mobility – the use of short breaks or the ability to move to different workstations within a classroom – can help to anchor the attention of active learners.¹⁰⁵

Assign Homework: Periodic assignments, both developmental and graded, offer instructors a way to incorporate exercises which appeal to diverse learners – without “betting the house” that a particular project will have a disproportionate impact on grades. Assignments

offer a *consistent, recurring* way to reach students whose learning styles do not mirror those of the class; they offer instructors a way to “road test” a technique and evaluate its efficacy; and they provide all learners – both faculty and student – with an opportunity to “try on” a new way of acquiring and processing information.

Explicitly Acknowledge Diverse Learning Styles: A simple acknowledgement both at the beginning of the semester and throughout the year that students *do* have different learning preferences can encourage students to evaluate – and potentially adjust – their learning strategies. Asking students how they “like” to learn and prodding them to devise ways to use their preferred techniques carries benefits beyond the legal classroom. In a class evaluation, one student commented, “I don’t like reading but drawing diagrams was helpful.”¹⁰⁶

CONCLUSION

Despite the plethora of scholarly discussion on the existence and contours of learning preferences, the overarching question remains: “so what?” There is significant disagreement about what – if anything – instructors should do to accommodate student learning styles.¹⁰⁷ While faculty may give lip-service to the notion that pictures speak as effectively as text, for lawyers raised on the casebook method and Socratic inquiry, all other approaches may be “legal analysis lite.” Moreover, precious class time and resources could be wasted in inept, efforts to “appease” a particular learning style.¹⁰⁸ However, if the overarching purpose of every course is to expose students to multi-layered learning, to lead them beyond discrete “factoids” to transformational knowledge, then exposing students to different modes of learning becomes paramount. To teach law at the undergraduate level requires not only good lawyers, but also committed teachers. Research suggests that students – and presumably professors – actually become “more proficient” learners to the extent that

they are exposed to new learning mechanisms.¹⁰⁹ Incorporating exercises, however small, that consistently expose students to all four methods of information management can guide students toward higher-order learning.¹¹⁰

Ultimately, whether faculty chooses to adapt pedagogical techniques aimed at diverse learning styles goes to the core of an instructor's personal educational philosophy. However, even absent any accommodation, an understanding of both student *and* faculty learning preferences can help create a more empathetic and respectful learning environment. The unrelieved use of a teaching style incompatible with a student's preferred learning style may create barriers to learning. It may be that students "don't get it," not because of a lack of intelligence or diligence, but because they simply do not speak the same "language" as the instructor. Even if the ultimate goal is to teach students a new "language" for learning, it is of inestimable value if the professor is able to speak - or at least recognize - the native tongue. While it may not be possible to engage all students on a consistent basis, an appreciation of learning preferences will ensure that, if not all, at least *fewer* business students will be "left behind."

ENDNOTES

¹ Compare B. F. Skinner, *The Shame of American Education*, 39 AM. PSYCHOL. 947, 951(1984)(arguing that learning is a process of changing behavior through repeated reinforcement of desired outcomes), and DAVID A. KOLB, EXPERIENTIAL LEARNING: EXPERIENCE AS THE SOURCE OF LEARNING AND DEVELOPMENT 26 (1984) available at http://www.learningfromexperience.com/images/uploads/process_of_experiential_learning.pdf (arguing that learning is not a "storehouse of facts" but a process in which concepts are derived and modified by experience)(hereinafter "Source of Learning").

² See, e.g., TAXONOMY OF EDUCATIONAL OBJECTIVES: THE CLASSIFICATION OF EDUCATIONAL GOALS 201-207 (Benjamin S. Bloom et al. eds., 1956)(distinguishing higher order thinking skills such as “critical thinking,” “analysis,” “synthesis” and “evaluation” from “knowledge”).

³ M. H. Sam Jacobson, *A Primer on Learning Styles: Reaching Every Student*, 25 U. SEATTLE L. REV. 139, 144-169 (2001). See also Jonathan L. Ross, Maureen T. B. Drysdale & Robert A. Schulz, *Cognitive Learning Styles and Academic Performance in Two Postsecondary Computer Application Courses*, 33 J. RES. ON COMPUTING EDUC. 400, 401(2001)(reporting on findings that environmental, emotional, personal and biological factors affect learning preferences).

⁴ Jacobson, *supra* note 3 at 146. See also Eric A. DeGroff & Kathleen A. McKee, *Learning Like Lawyers: Addressing the Differences in Law Student Learning Styles*, 2006 BYU EDUC. & L. J. 499, 511 (2006) (“[I]ntelligence is not generally considered to be subject to improvement in adult learners.”).

⁵ Robin H. Boyle & Rita Dunn, *Teaching Law Students Through Individual Learning Styles*, 62 ALB. L. REV. 213, 224 (1988)(“Professors who use the identical strategies in teaching all students in a class with diverse learning styles will find it is likely to be less effective for some students.”).

⁶ See *infra* note 24 and accompanying text.

⁷ See, e.g., ALAN PRITCHARD, *WAYS OF LEARNING* 41 (2^d ed.2009)(noting that “learning style” is frequently used interchangeably with “cognitive style” and identifying eight, somewhat overlapping definitions of learning style).

⁸ DeGroff & McKay, *supra* note 4 at 509 (defining “learning style” as “the way in which students perceive, absorb and process new information.”).

⁹ Jacobson, *supra* note 3 at 142 (describing learning style as “those cognitive, affective and psychological behaviors that indicate how learners interact with and respond to the learning environment and how they perceive, process, store and recall what they are attempting to learn.”); Pritchard, *supra* note 7 at 41 (noting that “learning style” can be considered as “the particular way in which an individual learns; a mode of learning – an individual’s *preferred* or best manner(s) in which

to think, process information and demonstrate learning; habits, strategies or regular mental behaviors concerning learning...”(emphasis added).

¹⁰ See *infra* note 19 and accompanying text.

¹¹ Pritchard, *supra* note 7 at 43.

¹² *Id.* at 43 (noting that individuals may adopt different learning styles for different tasks).

¹³ *Id.* at 42. See also *infra* note 24 and accompanying text.

¹⁴ For an accessible and comprehensive discussion of mainstream learning style theories, see Pritchard, *supra* note 7 at 35-57, 86-113.

¹⁵ See, e.g., Isabel Briggs Myers, THE MEYERS-BRIGGS TYPE INDICATOR (1962); Rita Stafford Dunn, Kenneth J. Dunn & Gary E. Price, THE LEARNING STYLE INVENTORY (1989); Howard Gardner, MULTIPLE INTELLIGENCE: THE THEORY IN PRACTICE (1992); Alice Y. Kolb & David A. Kolb, *Experiential Learning Theory: A Dynamic, Holistic Approach to Management Learning, Education and Development*, in THE SAGE HANDBOOK OF MANAGEMENT LEARNING, EDUCATION AND DEVELOPMENT 42, 49-69 (Steven J. Armstrong & Cynthia V. Fukami, eds., 2009)(hereinafter “Holistic Approach”).

¹⁶ See, e.g., JAMES E. ZULL, THE ART OF CHANGING THE BRAIN: ENRICHING TEACHING BY EXPLORING THE BIOLOGY OF LEARNING 31-47 (2002)(arguing that learning results from, and creates changes in, the brain); Walter L. Leite, Marilla Svinicki & Yuying Shi, *Attempted Validation of the Scores of the VARK: Learning Styles Inventory with Multitrait-Multimethod Confirmatory Factor Analysis Models*, 70 EDUC. & PSYCHOL. MEAS. 323, 326 (2010), available at <http://epm.sagepub.com/content/70/2/323> (observing that the VARK (visual, auditory, read/write, kinetic) construct is based on neurolinguistic programming).

¹⁷ STUDENT LEARNING ASSESSMENT 97(Middle States Com. On Higher Educ. ed., 2003)(“Learning styles make intuitive sense.”).

¹⁸ See, e.g., R. David Mitchell, *The Impact of Educational Technology: A Radical Reappraisal of Research Methods*, in ASPECTS OF EDUCATIONAL TECHNOLOGY XXVII 49 (describing the evidence with regard to the existence and impact of learning styles as “intellectual pollution”).

¹⁹ See, e.g., David A. Kolb, *LEARNING STYLE INVENTORY: TECHNICAL MANUAL* (1976) (utilizing a self-administered, self-scored questionnaire as a basis for assessment); Myers, *supra* note 15 (utilizing a participant’s responses to questions as a basis for determination of personality type).

²⁰ Maryanne M. Jennings, *In Defense of the Sage on the Stage: Escaping from the “Sorcery” of Learning Styles and Helping Students Learn How to Learn*, 29 J. LEGAL STUD. EDUC 191, 212 (2012) (observing that there has been “insufficient intellectual curiosity” to research the question of whether there is any correlation between self-professed learning preferences and actual learning style).

²¹ See, e.g. Hay Group, *Kolb Learning Style Inventory (KLSI)*, available for purchase at http://www.haygroup.com/leadershipandtalentondemand/ourproducts/item_details.aspx?itemid=118&type=2&t=2.

²² Jennings, *supra* note 20 at 212-14 (identifying studies critical of the instruments used to determine the classification of learning preferences and the impact of learning style on learning).

²³ Jennings, *supra* note 20 at 215 (observing that in some instances the learning styles assessment has “devolved into questionable diagnosis mechanisms....”).

²⁴ Ross, Drysdale & Schulz, *supra* note 3 at 400 (citation omitted).

²⁵ PETER HONEY & ALAN MUMFORD, *Learning Styles Helper’s Guide* 7-8 (2006) (positing that multiple ways of processing and experiencing information are necessary for effective learning); Jacobson, *supra* note 3 at 171 (identifying the stages of the learning process and arguing that all phases must be “in balance.”).

²⁶ Alice Y. Kolb & David A. Kolb, *Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education*, 4 ACAD. MANAGEMENT LEARNING & EDUC. 193, 194 (arguing that the learning process is a “spiral” in which an individual learns utilizing all four modalities: experiencing, reflecting, thinking and acting)(hereinafter “Learning Spaces”).

²⁷ Robin A. Boyle, *Employing Active-Learning Technologies and Metacognition in Law School: Shifting Energy from Professor to*

Student, 81 U. DET. MERCY L. REV. 1,16 (2003)(suggesting that professors teach either in accordance with their own learning preference or adopt the learning style in which they were taught). *See also* Carol Marshall, *Teachers' Learning Styles: How They Affect Student Learning*, 64 THE CLEARING HOUSE, 225, 225-26 (1991)(noting that in response to an informal query, of “why do you teach the way you do? teachers consistently responded with “it’s the way I was taught” or “it’s the way I learn.”).

²⁸ Kolb (Source of Learning), *supra* note 1 at 38.

²⁹ Kolb & Kolb (Learning Spaces), *supra* note 26 at 194 (describing six propositions central to experiential learning theorists).

³⁰David A. Kolb, Richard E. Boyatzis & Charalampos Mainemelis, *Experiential Learning Theory: Previous Research & New Directions in PERSPECTIVES ON THINKING, LEARNING AND COGNITIVE STYLES* (Robert J. Stenberg & Li-Fang Zhang eds., 2001)(“[T]he learner must continually choose which set of learning abilities he or she will use in a learning situation.”)(hereinafter “New Directions).

³¹ *See* Kolb & Kolb (Learning Spaces), *supra* note 26 at 195 (positing the existence of a “learning cycle” where an individual acquires and processes information using both preferred and non-preferred modes of information management). *But see* William Wesley Patton, *Opening Students Eyes: Visual Learning in the Socratic Classroom*, 15 LAW & PSYCHOLO. REV. 1, n.3 (1991)(arguing that the acquisition phase may be the most important part of information management, since without such acquisition, processing and integration cannot occur).

³² Kolb & Kolb (Learning Spaces), *supra* note 26 at 193.

³³Kolb (Holistic Approach), *supra* note 15 at 45 (suggesting that CE learners tend to be right-brained, holistic learners).

³⁴ Jennings, *supra* note 20 at 202.

³⁵ *Id.* at 203.

³⁶ *Id.* at 202-03.

³⁷ *Id.* at 202.

³⁸ Kolb & Kolb (Holistic Approach), *supra* note 15 at 44.

³⁹ Kolb (Source of Learning), *supra* note 1 at 30.

⁴⁰ Jennings, *supra* note 20 at 202 (noting that when drafting a paper, AE students rarely complete the research in advance but proceed through numerous drafts, researching as they write).

⁴¹ Kolb (Source of Learning), *supra* note 1 at 30.

⁴² Jennings, *supra* note 20 at 203.

⁴³ Kolb & Kolb (Learning Spaces), *supra* note 26 at 196. Kolb and other researchers have further refined the four original learning styles. *See id.* at 197-99 (describing refinements that result in nine distinct learning types).

⁴⁴ Jennings, *supra* note 20 at 205.

⁴⁵ DeGroff & McKee, *supra* note 4 at 515.

⁴⁶ Kolb & Kolb (Learning Spaces), *supra* note 26 at 196.

⁴⁷ Pritchard, *supra* note 7 at 50.

⁴⁸ Jennings, *supra* note 20 at 206.

⁴⁹ Kolb & Kolb (Learning Spaces), *supra* note 26 at 196.

⁵⁰ *Id.* at 196-7.

⁵¹ *Id.* at 197.

⁵² Pritchard, *supra* note 7 at 50.

⁵³ Jennings, *supra* note 20 at 207.

⁵⁴ Kolb & Kolb (Learning Spaces), *supra* note 26 at 197; DeGroff & McKee, *supra* note 4 at 515-16.

⁵⁵ Kolb & Kolb (Learning Spaces), *supra* note 26 at 197.

⁵⁶ *Id.* at 197.

⁵⁷ *Id.*

⁵⁸ Pritchard, *supra* note 7 at 49-50.

⁵⁹ Jennings, *supra* note 20 at 205 (citations omitted).

⁶⁰ *Id.*

⁶¹ Kolb & Kolb (Learning Spaces), *supra* note 26 at 196.

⁶² *Id.* at 197.

⁶³ Jennings, *supra* note 20 at 207 (noting that when working together in groups, Accommodators may “irritate” Assimilators who value logical responses rather than the “gut feelings” characteristic of Accommodators).

⁶⁴ Kolb & Kolb (Learning Spaces), *supra* note 26 at 197.

⁶⁵ Pritchard, *supra* note 7 at 50.

⁶⁶ Kolb & Kolb (Learning Spaces), *supra* note 26 at 197.

⁶⁷ *Id.* at 195 (describing learning as a “recursive” process involving all four modes of learning).

⁶⁸ Kolb & Kolb, (Holistic Approach), *supra* note 15 at 51-52 (providing a model for problem solving that integrates decision analysis with the four learning styles).

⁶⁹ John H. Reese & Tania H. Reese, *Teaching Methods and Casebooks*, 38 BRANDEIS L. J. 169, 177 (2000); DeGroff & McKee, *supra* note 4 at 521.

⁷⁰ Saul McLeod, (2010) *Kolb’s Learning Styles and Experiential Learning Cycles*, <http://www.simplypsychology.org/learning-kolb>. (last accessed August 15, 2013).

⁷¹ DeGroff & McKee, *supra* note 4 at 521.

⁷² *Id.*

⁷³ *Id.* at 542-544.

⁷⁴ *Id.*

⁷⁵ See, e.g. Boyle & Dunn, *supra* note 5 at 215(citing research finding that college students’ performance improved when the instructor’s learning style was the same as their own); Rita Dunn et al., *Effects of Matching and Mismatching Corporate Employees’ Perceptual Preferences and Instructional Strategies on Training Achievement and Attitudes*, 11 J. APPLIED BUS. RES. 30, 33 (1995)(“[M]atching ...perceptual preferences with complementary instructional resources significantly affected training achievement and attitude test scores toward their instruction.”).

⁷⁶ Kolb & Kolb, (Learning Spaces) *supra* note 26 at 201-02.

⁷⁷ James Giorando & Regina H. Rochford, *Understanding Business Majors’ Learning Styles*, 11 COMMUNITY C. ENTERPRISE 21, 23-24 (2005)(noting that many students enrolled in business courses are analytical learners who crave structure); Jennings, *supra* note 20 at 200 (“[B]usiness students tend to be Kolb assimilators, favoring analytical approaches to learning....”).

⁷⁸ Robert Loo, *A Meta-Analytic Examination of Kolb’s Learning style Preferences Among Business Majors*, 77 J. EDUC. BUS 252, 253 (2002)(reporting on several studies examining Kolb’s preferred learning styles in educational settings).

⁷⁹ *Id.* at 253 (reporting on a 1984 study which used Kolb’s LSI to determine the preferred learning style of accountants). But see, *id.* (reporting on a 1987 study that found no predominant learning style among accounting majors).

⁸⁰ *Id.* (reporting on a 1987 study that found that over 30% of finance majors were Assimilators).

⁸¹ *Id.* (describing the results of a 1987 study which studied Kolb learning styles among marketing majors).

⁸² Kolb & Kolb (Learning Spaces), *supra* note 26 at 196.

⁸³ *Id.* at 203.

⁸⁴ *Id.*

⁸⁵ Kolb & Kolb, (Learning Spaces), *supra* note 26 at 202.

⁸⁶ *Id.* at 203.

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Id.*

⁹³ For an excellent discussion of the benefits of utilizing the liberal arts in business education, see Joan V. Gallos, *Artful Teaching: Using the Visual, Creative and Performing Arts in Contemporary Management Education* 187, 187-212 in THE SAGE HANDBOOK, *supra* note 15 at 187-212.

⁹⁴ Donna M. Steslow & Carolyn Gardner, *More than One Way to Tell a Story: Integrating Storytelling Into Your Law Course*, 28 J. LEGAL STUD. EDUC 249, 257(2011)(noting that use of stories addresses multiple pedagogical challenges).

⁹⁵ See, e.g., Deborah Waire Post, *Teaching Interdisciplinarily: Law and Literature as a Cultural Critique*, 44 ST. LOUIS L. J 1247, 1258 (2000)(discussing the use of a short story focused on the experience of welfare recipients in connection with a case which absolved a medical provider from liability because there was no consideration for the services).

⁹⁶ Steslow & Gardner, *supra* note 94 at 260 (“War stories remain a viable source for stories in the classroom.”).

⁹⁷ Jacobson, *supra* note 3 at 175.

⁹⁸ See, e.g., Robert C. Bird, *Moral Rights: Diagnosis and Rehabilitation*, 46 AM. BUS. L. J. 407, 408 (2009)(describing a case involving the jigsawing of a Picasso linocut that could easily be adapted as a vehicle for discussing ethics, contracts and intellectual property).

⁹⁹ Boyle, *supra* note 27 at 19-20 (describing how to tweak PowerPoint to appeal to diverse learners).

¹⁰⁰ Professor DeAngelis’ blog site is available at <http://legalstudiesclassroom.blogspot.com/2011/02/law-music-video-bill-of-rights.html> (last visited August 10, 2013). See also Boyle & Dunn, *supra* note 75 at 232 (suggesting that instructors require students to utilize information that they have learned in a creative activity).

¹⁰¹ The *Holder in Due Course Blues* is available at <http://legalstudiesclassroom.blogspot.com/search/label/holder%20in%20Odue%20course> (last visited January 3, 2014).

¹⁰² *Id.* (reporting on student reported behavior in study conducted by the authors).

¹⁰³ *Id.*

¹⁰⁴ Jennings, *supra* note 20 at 231.

¹⁰⁵ Boyle & Dunn, *supra* note 5 at 234 (noting that one fourth of the students in a learning preference study preferred periodic mobility when learning new material).

¹⁰⁶ Anonymous Student Evaluation, Fall, 2012, MGT 360 Legal Environment of Business, on file with the author.

¹⁰⁷ DeGroff & McKay, *supra* 4 note at 535 (describing the tension between law school pedagogy which focuses on the learning style of the student and that focused on the demands of the discipline).

¹⁰⁸ Jennings, *supra* note 20 at 216.

¹⁰⁹ DeGroff & McKee, *supra* note 4 at 540; Kolb & Kolb (Learning Spaces), *supra* note 26 at 194 (noting that transformational learning occurs when a learner “touches all the bases – experiencing, reflecting, thinking and acting – in a recursive process that is response to the learning situation....”).

¹¹⁰ Jacobson, *supra* note 3 at 169 (noting that teaching to different learning styles leads all students to more “complex learning”).