If You Draw It, Students Learn It: An Approach to Teaching Contracts and Other Doctrinal Courses

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Introduction

Spring 2019 was my first semester as a tenure-stream law professor. That semester I taught Legal Remedies and Contracts II—two subjects that overlap in their coverage of contract damages. I felt very comfortable teaching contracts, given my nearly twenty years of experience on contractual matters in both the private and public sectors. My first few classes went well, which validated my initial confidence. However, my optimism about the semester evaporated when I attempted to teach the parol evidence rule (“PER”).

1 In simple terms, the PER protects the finality of written contracts by prohibiting the introduction of evidence of prior agreements between the parties. As a common law rule, the PER has been interpreted and applied differently by different jurisdictions. It has also been codified in the Uniform Commercial Code. See U.C.C. § 2-202 (Am. L. INST. & UNIF. L. COMM’N 2002). The application of the PER usually starts with a determination of whether the contract is integrated, as the final and exclusive expression of the parties. See Joseph M. Perillo, Contracts § 3.1 (7th ed. 2014). In principle, when a contract is integrated, it is more likely that the PER will bar the admissibility of the evidence. See id. at § 3.3. Under Section 213 of the Restatement (Second) of Contracts (1981), the effect of an integrated agreement on prior agreements (parol evidence rule) is explained as follows:

(1) A binding integrated agreement discharges prior agreements to the extent that it is inconsistent with them.

(2) A binding completely integrated agreement discharges prior agreements to the extent that they are within its scope.

(3) An integrated agreement that is not binding or that is voidable and avoided does not discharge a prior agreement. But an integrated agreement, even though not binding, may be effective in rendering inoperative a term which would have been part of the agreement if it had not been integrated.

See also Mader v. Grathwohl, 805 N.W.2d 285, 287 (Minn. Ct. App. 2011) (“The parol
kind students smiled, I felt, more at my attempt to be funny than at the nerdy joke itself. The previous week I had taught the “battle of the forms” under the Uniform Commercial Code (“UCC”). It is a challenging topic, but despite the faulty writing of UCC Section 2-207, students seemed to enjoy learning the rules that apply to conflicting terms in boilerplate forms. Based on that experience, I came to class motivated and energized to teach the PER.

By the time I finished teaching the class on the PER, it was obvious that I had failed. In fact, the feeling of failure and frustration came to me midclass as I sensed I was losing my audience. Most of us teachers are able to read the signs. Students’ confusion is expressed by a slight frown, squinting of the eyes and looking away, followed by a blank stare to complete the tuning-out cycle. In that moment, I felt like stopping and reframing what I had just explained, but I powered through it because I quickly realized that I had not prepared an alternative explanation. That moment—I can safely say—was the only time during class when the students and I were on the same page: confused and frustrated.

To be fair, as a conceptual matter, the PER is intuitive. It makes perfect sense that when there is a written contract, judges would respect its finality by not allowing the admission of “extrinsic evidence” (prior or contemporaneous agreements). However, teaching and learning the PER exceptions is challenging despite its deceptive conceptual simplicity. For instance, judges use, according to a concept, the PAROL EVIDENCE RULE: TOWARD CONCEPTUAL CLARIFICATION, 24 CHAP. L. REV. 89, 103 (2020) (explaining that “complete integrations bar evidence of both contradictory terms and consistent additional terms, whereas partial integrations only bar evidence of contradictory terms”). Section 2-202 of the Uniform Commercial Code provides that:

> terms with respect to which the confirmatory memoranda of the parties agree or which are otherwise set forth in a writing intended by the parties as a final expression of their agreement with respect to such terms as are included therein may not be contradicted by evidence of any prior agreement or of a contemporaneous oral agreement but may be explained or supplemented (a) by course of dealing or usage of trade (Section 1-205) or by course of performance (Section 2-208); and (b) by evidence of consistent additional terms unless the court finds the writing to have been intended also as a complete and exclusive statement of the terms of the agreement.


4 Many researchers have studied the impact of emotions on learning, including confusion. See, e.g., Jason M. Lodge et al., Understanding Difficulties and Resulting Confusion in Learning: An Integrative Review, Frontiers in Educ., at 49 (2018) (explaining that confusion and anxiety have been associated with blockages in the learning process and that confusion could be a trigger for deeper encoding).
to one scholar, six different definitions of the PER.\footnote{Joshua M. Silverstein, Contract Interpretation and the Parol Evidence Rule: Toward Conceptual Clarification, 24 Chap. L. Rev. 89, 117–21 (2020). The PER is also complex because different rules apply for complete and partially integrated contracts. Id. at 102-03.} Furthermore, the courts’ applications of the PER vary wildly and fall somewhere between the four-corners approach (called by some scholars “plain meaning” or “hard-PER”),\footnote{Eric A. Posner, Parol Evidence Rule, the Plain Meaning Rule, and the Principles of Contractual Interpretation, 146 U. Pa. L. Rev. 533, 534, 537–47 (1998) (explaining that under the hard-PER a “court generally excludes extrinsic evidence and relies entirely on the writing”).} and a more contextual approach (referred to as “soft-PER” or “modern approach”).\footnote{David G. Epstein et al., FIFTY: Shades of Grey—Uncertainty About Extrinsic Evidence and Parol Evidence After all These UCC Years, 45 Ariz. St. L. J. 925, 929 (2013).} Even though most professors teach it, there is no such thing as plain meaning in contracts, much less in life. Incidentally, I made the mistake of saying this to my students. They responded with looks of disbelief and annoyance. I could hear them thinking, if the “plain meaning” approach does not really exist, why are you teaching it to us then? In fact, the term “parol evidence rule” is so fraught with confusion that Professor Margaret Kniffin proposes that we change it to “contract supplementation requirements” or “contract alteration requirements” to bring some clarity to the discussion.\footnote{Margaret N. Kniffin, Conflating and Confusing Contract Interpretation and the Parol Evidence Rule: Is the Emperor Wearing Someone Else’s Clothes?, 62 Rutgers L. Rev. 75 (2009) (describing how scholars and judges confuse the term “parol evidence rule”). From a pedagogical perspective, I completely agree with Professor Kniffin. The term is also a misnomer as “parole” means “spoken word” in French, which creates further confusion as it appears to imply that the rule applies only to oral agreements. See Scott J. Burnham, The Parol Evidence Rule: Don’t Be Afraid of the Dark, 55 Mont. L. Rev. 93, 97 (1994) (“The word parole, from the French for oral, refers specifically to that which is spoken.”) (emphasis in original).} If judges and scholars are confused, how do we expect law students to understand the rule and its applications?

Thinking back, I failed to see the warnings about the challenges of teaching the PER. I had not read, or perhaps self-servingly neglected to pay attention to, the sections in many law review articles that describe the PER as dreadful, confusing, dark, perplexing, complex and mystifying.\footnote{Margaret N. Kniffin, Conflating and Confusing Contract Interpretation and the Parol Evidence Rule: Is the Emperor Wearing Someone Else’s Clothes?, 62 Rutgers L. Rev. 75, 102 (2009) (recommending that courts substitute the terms “contract supplementation requirements” or “contract alteration requirements” as a label for “the parol evidence rule” to avoid confusion and injustice); JAMES B. THAYER, A PRELIMINARY TREATISE ON EVIDENCE AT THE COMMON LAW 390 (1898) (stating that “[f]ew things are darker than [the parol evidence rule], or fuller of subtle difficulties.”); PERILLO, supra note 1, at § 3.1 (7th ed. 2014) (explaining that “much of the fog and mystery surrounding these subjects stems from disagreements as to the application of the parol evidence rule and as to the best method of ascertaining the intention of the parties—the process of contractual interpretation.”); Joshua M. Silverstein, Contract Interpretation and the Parol Evidence Rule: Toward Conceptual Clarification, 24 Chap. L. Rev. 89, 105–06, 120 (2020) (noting that parol evidence rule litigation is convoluted, courts are divided on the question of what constitutes “contradicting” or “adding” to a contract, and recommending the elimination of the phrase “parol evidence”).} Trying to recover
from the fumble of dropping the PER intellectual land mine during my class introducing the subject, I spent the next day thinking of fun ways to reteach the topic. Most people would agree that the words “fun” and “parol evidence rule” do not belong in the same sentence. But I thought there must be a way to teach it in a more engaging way. I searched law review articles, short essays, YouTube videos, and online forums for ideas. On a blog, I read a law professor’s idea of teaching the PER using a football metaphor, but because I am not a football fan and was not comfortable enough with the rules of the sport, I decided against using that analogy.

As I was about to give up the idea of using an analogy, it came to me. I thought of analogizing the PER to something that might be relatable to many students: the clubbing scene. I thought of the PER as a bouncer at a party (a contract interpretation party) who decides whether to let in party crashers (extrinsic evidence). I then drew stick figures to represent the house party and party crashers (for whom I have Greek names, Contradictus, Supplementus, Clarificus, and Amicus Contextus). Satisfied with myself that the analogy and drawings could work, I treated myself to a midday nap for the superhuman mental effort I had just exerted.

Early in my legal career, I often used simple drawings to explain to my domestic and foreign clients how international trade laws work, as well as the legal concepts and processes related to trade remedy cases. Admittedly, I am not great at drawing, as it was more of a survival response to complexity and confusion than anything else; nevertheless, my stick-figure drawings are good enough to impress kindergarten children. But after my failed attempt at teaching the PER, as I was feeling sorry for myself, drawing came back like an old friend I had forgotten and did not realize how much I missed.

My experience teaching the PER using the party bouncer analogy with the help of simple drawings was the inspiration for this teaching piece, which proposes using analogies and visuals as effective pedagogical tools to teach this and other “dreadful” legal topics. Part I explains the learning process and challenges in traditional law school classes. Part II analyzes the pedagogy and

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11 Contradictus for extrinsic evidence that contradicts the written terms in the contract; Supplementus for extrinsic evidence that supplements; Clarificus for evidence that clarifies ambiguity; and Amicus Contextus for extrinsic evidence of course of dealing, course of performance and usage of trade. See infra Part III.
neuroscience research on adults’ cognitive responses to analogies and visual teaching techniques. Part III provides a detailed example of teaching the PER using an analogy and drawings. Part IV discusses students’ feedback on my approach, its effectiveness in facilitating long-term memory encoding, and how this approach can be used to teach legal concepts more broadly.

I. The Learning Process: If Students Do Not Encode It, They Lose It

In a typical doctrinal law school class, students are asked to read two or three cases (or sometimes more) in preparation for class, which the professors then discuss based on a combination of the traditional and modern Socratic approaches,\(^\text{12}\) lectures, PowerPoint slides, problem sets, and multiple-choice questions.\(^\text{13}\) During class, professors typically ask volunteers or a preselected group of students to recite the facts of the cases, followed by questions about the holding, rules, and the court’s analysis and rationale.\(^\text{14}\)

I have always been curious about how much students retain from the concepts taught and discussed in class. Extrapolating from my own experience, how much information I process and remember from lectures or talks I have attended varies wildly.\(^\text{15}\) Intuitively, the more familiar I was with a topic, the more I remembered the lecture. But also, I often stopped paying attention if the topic was not interesting to me, or if it was unfamiliar or too complex. Yes, I was physically there, but for all intents and purposes I had left the room. Naturally, once my attention had left the room, I learned, processed, and remembered little to nothing about the lecture. It is disheartening to think that if I tune out speakers in lectures and talks that I intended to pay attention to, students must also do the same during my lectures. Admittedly, I do not possess the oratory skills to captivate and enrapture an audience when lecturing.


\(^\text{15}\) Based on my anecdotal experience teaching, the level of students’ comprehension of the material taught in a lecture format depends on many factors, including familiarity with the material, students’ level of attention and preparation, and how the material is presented.
on the exceptions to the PER. While the quest for a more accessible way to teach the PER led me to many painful research rabbit holes, I found some pedagogical gems that can make my lectures more memorable. Specifically, cognitive science provides important insights into how information is absorbed and processed first by short-term memory and then encoded into long-term memory.

A. Short-Term Memory

When students read their textbooks or listen to a lecture, the information enters their brains through sensory receptors—eyes and ears. Once the information is perceived, it activates distinct types of short-term memory: first sensory, then working memory. Sensory memory, also called sensory register, refers to the short-term storage of memory received through at least one of the five senses, usually hearing in traditional law school instruction. Working memory refers to "the small amount of information that can be held in mind and used in the execution of cognitive tasks." Unfortunately, the information makes only a quick stop in sensory and working memories. In other words, short-term memory can be analogized to a hotel lobby, where information must go through but does not stay for long. If students have paid attention while reading, the information enters their brains through their eyes, activating their sensory and working memories. Once in working memory, however, additional learning must take place for the information to be encoded into long-term memory.

How much of the information stored in working memory will students be able to recall one day, one week, or one month after class? I have met people, of whom I am deeply envious, with the ability to recall with amazing precision information they have read or heard only once. However, for most of us, the information stored in working memory is not automatically encoded into long-term memory. In fact, the capacity of our working memories is severely limited by two problems: temporal decay, and chunk capacity limits.

16 Stanford University, Learning and Memory: How It Works and When It Fails, YouTube (Mar. 9, 2010), https://youtu.be/aHiSnQqeyY.
17 Nelson Cowan, What Are the Differences Between Long-Term, Short-Term, and Working Memory?, 169 PROGRESS IN BRAIN RESCH. 323, 324 (2009) (It "reflect[s] faculties of the human mind that can hold a limited amount of information in a very accessible state temporarily") [hereinafter Cowan, What Are the Differences].
18 Nelson Cowan, Working Memory Underpins Cognitive Development, Learning, and Education, EDUC. PSYCH. REV., 197, 197 (2014) (explaining that "organizing knowledge . . . reduces one’s memory load because the parts do not have to be held in mind independently") [hereinafter Cowan, Working Memory].
19 Cowan, What Are the Differences, supra note 18, at 324 (explaining that the brain can hold a “limited amount of information in a very accessible state temporarily”).
21 Cowan, What Are the Differences, supra note 18, at 326.
which sounds awful, is an evolutionary tool to discard information stored in working memory that is not critical for survival. Working memory can hold the information for longer than sensory memory—twenty to thirty minutes before it starts “decaying.” However, because of its chunk capacity limit, working memory can hold only five to nine pieces of information at a time. This data point has influenced what I plan to cover during class. When new to the academy, I—and many of my colleagues have shared the same experience—was inclined to be overambitious in terms of course coverage. I now pare down my curricula to comport with the realities of the working memory constraints.

Although the students seemingly understand a concept during class using their working memories, whether those concepts will be encoded into long-term memory is a different question. One evolutionary explanation of the limited capacity of the working memory posits that it needs to be able to continuously absorb new information for survival. Along the same lines, the brain is more likely to transfer information necessary for survival to long-term memory. Because the content on the PER is not, unfortunately, critical for the students’ survival, the information will most likely be forgotten unless it is encoded in long-term memory. In fact, experiments on how much we forget over time show that “without any reinforcement or connections to prior knowledge, information is quickly forgotten—roughly 56 percent in one hour, 66 percent after a day, and 75 percent after six days.” My apologies to my colleagues for offering this depressing news on students’ temporal decay, but I promise to offer some good news.

Anecdotally, if the students have read the case right before class or the day before, they will be able to recall some of the information discussed in class. This is not terrible news, but temporal decay or short-term memory loss will continue its path of destruction unless students connect the learned concepts to prior knowledge through organizational structures in the brain known as schemata, which will be discussed in more detail below. Given that the information is still somewhat fresh the day after it was read, students are generally able to answer questions about the concepts they just learned, including reciting the relevant facts and ruling of a case. At this juncture, when students have stored and can recall the new or newish concepts in their short-term memory, what happens next is critical in long-term encoding. In other

22 Cowan, What Are the Differences, supra note 18.
24 Id.
25 Cowan, What Are the Differences, supra note 18, at 326.
27 See infra Part I.B.
words, if these concepts are not encoded in long-term memory, the brain will discard them.\textsuperscript{28}

The chunk capacity limit of short-term memory gives rise to a phenomenon called cognitive overload, described as follows: “[W]hen too much information is presented to students at once, it overpowers them and in consequence much of that information may quickly be forgotten or lost.”\textsuperscript{29} That cognitive overload inhibits learning\textsuperscript{30} and brings back bad memories of when I started teaching and attempted to cover more than a dozen legal concepts in my lectures. It became quickly apparent that teaching too many new concepts confused and overwhelmed students. Cognitive theory teaches us that to avoid cognitive overload, “(1) the instructor needs to know the level of expertise of the learner, and (2) instructional design needs to gradually build up the learner’s schema, from basic to complex.”\textsuperscript{31}

At the beginning of my Business Associations class, I used to give the students a quiz that tested basic business knowledge. These quizzes also showed that most students viewed businesses negatively. I stopped giving these quizzes after a while because I got the same results year after year. Most of the students had a basic understanding of businesses, their functioning and benefits for the economy as a whole, but they lacked basic knowledge of corporate governance and related legal issues. Incidentally, students also showed a strong anti-big business sentiment, but only a few could articulate the basis for those beliefs (having too much political power and influence, exacerbating inequality, etc.).

Given those consistent results, I now structure my class based on the assumption that while most students are familiar with businesses and companies, they do not have any knowledge about how businesses are governed. For that reason, I purposefully structure my class by building their schema from simple and familiar concepts (what a corporation is, how it benefits society) to complex and nuanced (how a corporation is governed, what tensions arise between shareholders and directors, and how the law addresses those tensions). Similarly, when I teach the PER, as explained in detail in Part III, the lesson starts with the justifications for the PER, why it makes sense to respect the finality of the written contract, and the commonsense circumstances that may warrant allowing extrinsic evidence, before delving into the application of the PER exceptions and how they track those commonsense circumstances.

\textsuperscript{28} John R. Anderson, Retrieval of Information from Long-Term Memory, 220 Sci. 25 (1983).


\textsuperscript{30} See id. at 26, 31–33.

B. Long-Term Memory and the Creation of Schema

My colleagues empathize with my frustration about how quickly students forget concepts they are seemingly able to understand in class. Cognitive science tells us that students may understand the concepts in class by using their short-term memory, but if those “learned” concepts are not transferred into long-term memory, they will be forgotten. Unless the concepts in working memory move to long-term memory, the brain will discard them. In fact, concepts stored in working memory will start fading within twenty to thirty minutes because of this temporal decay. Short-term memory and long-term memory differ in important ways, including duration and capacity. Namely, long-term memory has no duration or capacity limitations.

In terms of learning, long-term memory is the promised land, where newly learned skills and information integrate with a person’s network of knowledge. Long-term memory encompasses three operations: encoding, storage, and retrieval. Encoding is the process of transforming information to store it in long-term memory. The brain stores information in structures called schemata or systems to organize interrelated concepts in a meaningful way. When students acquire new information or skills, their knowledge structures are more limited, less organized, and have fewer connections than those of an expert. Conversely, “the schemas of an expert, according to the theory, are richer, more complex and well-connected.” For that reason, learners who are familiar with or have some prior knowledge of a subject are more likely to store quickly and better recall new related concepts.

Schema is defined as “a generalization of past experiences that form a scripted pattern of thought,” or a mental framework. I like to think of schema as a filing system with topic-specific files to store acquired knowledge. During

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32 Cowan, Working Memory, supra note 19, at 197.
33 Cowan, What Are the Differences, supra note 18.
34 Id.
35 Id. at 326 (2009) (“A duration difference means that items in short-term storage decay from this sort of storage as a function of time. A capacity difference means that there is a limit in how many items short-term storage can hold.”).
38 Dorothy Tse et al., Schemas and Memory Consolidation, 316 SCI. 76 (2007).
40 Id.
the encoding process, the brain files new knowledge in files that have similar or related knowledge. While students may understand a concept captured by their working memories in class, if they do not have the relevant schema, or the files with related or familiar information, their brains will not be able to encode and store the new information.

An experiment conducted by British psychologist Frederick Bartlett studied how schema unconsciously alters our perception and memory. Bartlett read to his British students an unfamiliar Native American folk tale, from the Chinook Tribe, involving ghosts, hunting seals, going to war, and canoeing. He then tested the students’ recollection of the story days, weeks, and months after and found that students did not recall such unfamiliar details as hunting seals. According to Jonas Koblin, this happened because “hunting seals did not fit the cultural context of rich British students.” In other words, because the students did not have an existing schema for this kind of information, they could not move the information into long-term memory. This is related to the phenomenon known as “confirmation bias,” “the tendency to gather evidence that confirms preexisting expectations.” Conversely, students also tend to ignore ideas that do not fit their schema.

When I taught Business Associations for the first time at the University of New Mexico School of Law, I told the students a story related to how I found discrepancies in the accounting books of a client and how that finding triggered a chain of events that culminated in the firing of the vice president of the company. When reviewing the company’s accounting books, my colleague flagged large purchases of a chemical used in producing one of the client’s products. The purchase of this amount of chemical was strange, because we knew exactly how much was needed (very little) to produce the products at issue. As it turns out, the vice president had purchased only the necessary amount but had booked it as a large purchase and pocketed the difference. Later in the semester I asked the students what they remembered of the story. A few characterized it as a corporate officer defrauding the company (something they are familiar with), but only a couple of students (one of them an accountant and the other one a business owner) recalled how we had found out about it (by reviewing closely the raw material ledger). In other words, most of the students did not remember unfamiliar information (accounting books), whereas the few students familiar with business and accounting terms recalled how the fraud had been uncovered.

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43 The study is called “The War of the Ghosts.” See Bartlett, supra note 43.
While the conclusion that students are more likely to remember familiar concepts makes sense, the following findings of Professor Bartlett are not as intuitive:

- Students tend to process unfamiliar concepts (like seal hunting) by accessing familiar schemata (like going hunting). This happens because, as Professor Bartlett argues, we channel unfamiliar information through the framework of familiar schema.\(^{46}\)

- Students rationalize the illogical or counterintuitive. In other words, students at first thought the story was strange and illogical; however, a few weeks later they thought the story made sense and that it was logically coherent.\(^{47}\)

- Over time, the students’ memory of the story changed.\(^{48}\) This supports the theory that people’s memory is not fixed but rather is constantly being adjusted. In other words, much of what we remember is based on this constant adjustment of schemata, a cluster of related pieces of information.

It is depressing knowing that the students who do not have the relevant file folders in their brains to store new information and concepts will soon forget the information. Scholars—who define learning as the transferring of information from short-term memory into long-term memory\(^{49}\)—would say that those students have not really learned the concepts. However, the good news is that as students learn a subject, the topic becomes more familiar and the brain adjusts to create the schema necessary to encode the information in long-term memory. The one-million-and-a-half-dollar question (considering current inflation) is which teaching techniques facilitate the transfer of new concepts from working memory to long-term memory and allow that information to be recalled for the higher-order level thinking required for a final exam.

To appeal to my inner heroes, I like to think of faculty as Super-Memoria, a superhero tasked with battling Super-Olvidare, the supervillain of temporal decay or memory loss. Super-Olvidare destroys the new concepts stored in short-term memory unless they can be protected by schemata and move to long-term memory. These familiar concepts are Super-Olvidare’s kryptonite. Time is not on Super-Memoria’s side: The longer new concepts are held independently without schema’s protection, the easier they become prey to Super-Olvidare. However, once in long-term memory, the new concepts become schema themselves and are forever saved from Super-Olvidare’s attacks.

\(^{46}\) Bartlett, supra note 43, at 19.  
\(^{47}\) Id. at 84.  
\(^{48}\) Bartlett, supra note 43, at 311.  
This article proposes using analogies and drawings as effective and relatively easy ways to incorporate pedagogical tools to activate schemata.\textsuperscript{30}

II. The Power of Analogies and Audiovisuals

When I practiced international trade law, I used drawings and analogies to explain complex concepts to business clients who sometimes did not speak English. During my first-year teaching, I started using analogies and drawings again out of frustration at my failed attempt to teach the PER. However, it was not until I did research for this paper that I learned what the science of learning says about the effectiveness of analogies as a teaching technique. Cognitive science tells us that these teaching tools are effective ways to introduce new content to students in nonthreatening and more accessible ways. However, while research shows that students learn better in relaxed and safe learning environments,\textsuperscript{50} it is also true that “learning for long-term retention and transfer is complex and arduous.”\textsuperscript{51} So, after introducing topics using these tools, I move on to the more complex and arduous aspects of the materials that require more effortful learning from the students.\textsuperscript{52}

A. The Power of Analogies

The effectiveness of using analogies has been researched extensively.\textsuperscript{53} In her article \textit{The Cognitive Power of Analogies in the Legal Writing Classroom}, Professor Patricia Montana explains why law students learn better when they connect what they are learning to a familiar nonlegal experience.\textsuperscript{54} When encoding information, the brain functions like a filing system, trying to store information in related places. An analogy relates the new concept, known as the “target,” to a nonthreatening familiar concept, known as the “anchor.”\textsuperscript{55} Also, the brain encodes new information by organizing and assigning meaning to it.

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\textsuperscript{30} See, e.g., Lisiane Closs et al., \textit{Learning Environments’ Influence on Students’ Learning Experience in an Australian Faculty of Business and Economics}, 25 Learning Env’ts Rsch. 271 (2022).

\textsuperscript{31} Hultberg et al., supra note 30, at 26, 27.

\textsuperscript{32} \textbf{Brown et al.}, \textit{Make It Stick: The Science of Successful Learning} 3 (2014) (“Learning is deeper and more durable when it’s \textit{effortful}.”) (emphasis in original).

\textsuperscript{33} Mark C. James & Lawrence C. Scharmann, \textit{Using Analogies to Improve the Teaching Performance of Preservice Teachers}, J. of Rsch. In ScI. Teaching 565, 566 (2007) (explaining that “analogy making [is] the brain’s most fundamental mechanism for building knowledge” and citing other studies).


\textsuperscript{35} Id. at 315–20.
By anchoring new challenging legal concepts to familiar concepts already in long-term memory, students are better able to encode these new concepts in long-term memory.\textsuperscript{57} In short, analogies provide new concepts with a ready-made home in the brain’s filing system.

\textbf{B. The Power of Visuals}

I grew up in an artistic house, so using drawings always felt familiar to me. My dad taught my sisters and me math by using drawings, which I imagine created the neural pathways in my young mind to embrace drawings. It is no surprise that when faced with complexity as an adult, I felt a strong urge to draw or diagram. So, I used drawings and analogies to teach the PER. Nevertheless, familiarity with drawing is one thing, and its effectiveness as a teaching tool is something else entirely.

Cognitive load theory explains the effectiveness of audiovisuals in instruction. As explained in Part I, concepts perceived by the senses first move from sensory memory to working memory, and then to long-term memory.\textsuperscript{58} Verbal memory refers to “the capacity to remember something written or spoken that was previously learned.”\textsuperscript{59} One important aspect of visual memory is that it is partially independent from verbal memory.\textsuperscript{60} Accordingly, visual stimuli are processed independently from verbal stimuli, and vice versa. Also, the brain encodes visuals much faster than text or words, and files them more quickly in long-term memory.\textsuperscript{61}

Traditional law school instruction, which is primarily auditory,\textsuperscript{62} quickly overloads the verbal working memory. However, when learning from visuals, the brain shares the cognitive load between the verbal and visual memories.\textsuperscript{63} This is known in literature as the “pictorial superiority effect,” as students can better recall concepts associated with visuals and more easily transfer their learning to novel situations.\textsuperscript{64} Using visuals will make your analogies even

\begin{itemize}
\item \textsuperscript{57} Id. at 317.
\item \textsuperscript{58} See supra Part II.
\item \textsuperscript{60} Candice C. Morey & Nelson Cowan, When Do Visual and Verbal Memories Conflict? The Importance of Working-Memory Load and Retrieval, 31 J. of Experimental Psych. 703, 703 (2005) (explaining that according to working-memory theory there are passively held storage faculties for verbal and visuospatial forms of information).
\item \textsuperscript{63} Hillary Burgess, Deepening the Discourse Using the Legal Mind’s Eye: Lessons from Neuroscience and Psychology that Optimize Law School Learning, 29 Quinnipiac L. Rev. 1, 47-54 (2011).
\item \textsuperscript{64} Id.
\end{itemize}
more effective because the brain processes pictures and concepts anchored to prior knowledge more rapidly.\textsuperscript{65} However, not all use of visual instruction leads to faster encoding and better recall. Narration accompanied by redundant text, or narration accompanied by visuals and text, leads to the redundancy effect, which actually hinders the encoding process.\textsuperscript{66} That said, if one uses pictures at the same time as text or narration, it is better to use narration than text.\textsuperscript{67} Among other evidence-based tips to avoid the redundancy effect when using slides: Do not read over text and include pictures that complement, not duplicate, the text on your slides.\textsuperscript{68} Of course, whether narration over slides that contain both pictures and texts creates redundancy depends on the quantity and complexity of the text, and complexity of the visual.\textsuperscript{69} The more redundancy between text and narration, the more likely it is to create cognitive overload.\textsuperscript{70} Many students default to asking that professors present using slides. However, depending on how the slides are presented, e.g., reading aloud text presented on the slides, the encoding process may in fact be hindered.

Anecdotally, when I teach using drawings, the students enjoy the class more than the traditional lectures. Their eyes light up as they follow my fingers on the board, their bodies lean forward and they smile at the stick figures. “Finally, something easy to follow,” I can hear their brains saying. Also, visual classes give students a break from the heavy auditory and verbal learning inherent to traditional law school instruction—so they can focus on death by PowerPoint slides on the statute of frauds. However, limiting and simplifying the concepts to reduce cognitive load can yield diminishing returns. When the cognitive load is too high, students’ brains are overwhelmed and will not follow the presentation; but when it is too low their brains will not be sufficiently engaged, and they will get bored.\textsuperscript{71} In other words, we want to make the concepts simple but not too simple—a challenging balance to strike.

The next part provides an example of teaching the PER using an analogy and drawings.

\textsuperscript{65} Id.
\textsuperscript{67} Burgess, supra note 64, at 29; see also Kalyuga et al., supra note 67, at 369.
\textsuperscript{68} Burgess, supra note 64, at 54–55; see also Kalyuga et al., supra note 67, at 362.
\textsuperscript{69} Burgess, supra note 64, at 42.
\textsuperscript{71} Cowan, Working Memory, supra note 19, at 197.
III. Teaching the Parol Evidence Rule Using an Analogy and Drawings

Having tried and failed at teaching the PER following a more traditional approach, I was ready to teach it in a more fun and accessible way. It was, admittedly, a teaching gimmick. But by connecting the PER rules to familiar knowledge and using drawings to leverage underutilized visual memory, the gimmick successfully introduced the topic to the students in a way that was nonthreatening and—dare I say—fun. Of course, this was a jump-off point to dive into the more complex, challenging and, yes, dreadful issues triggered by the PER in later classes. If the students got lost in the minutiae and varying contradictions in the courts’ applications, they had these simple rules to seek refuge.

A. The Setup

Usually, I introduce the class by asking broad questions that the students know how to answer based on their general and intuitive knowledge of contracts.

Question 1: How do courts resolve contract disputes?
Answer: By analyzing and interpreting the language in the contract.

I add that contract interpretation is a hotly litigated issue in many contract disputes.72

Question 2: How do contract negotiations begin and when do the parties begin drafting the contract?
Answer: Parties generally begin discussing a contract orally and start drafting it once they have agreed to the key terms.

If I do not get the answer that I am looking for, that contract negotiations start with initial conversations or discussions between the potential parties, I ask more leading questions. For example, I explain that if a construction company needs twenty granite countertops to complete a job for a real estate developer, it will call several granite companies. Usually, there will be conversations before the parties decide to memorialize their agreement in writing. The contract is usually drafted after the parties have agreed orally, informally, or in writing to the key terms (number of countertops, specifications, prices) of the transaction.

72 Alan Schwartz & Robert E. Scott, Contract Interpretation Redux, 119 Yale L. J. 926 (2010). I do not examine the issue of whether the application of the parol evidence rule falls under the umbrella of contract interpretation, or whether it is a distinctively separate rule of law.
Question 3: Let’s assume that a retailer and a supplier have drafted, finalized, and signed a supplier agreement. After a few months there is a dispute that is litigated. The supplier seeks to introduce as evidence pre-agreement conversations and understandings. Do you think courts should accept this evidence, which we are going to call “extrinsic evidence”? Or should the courts respect the integrity of the written contract?

Answer: Courts should respect the integrity of the written contract, which, after all, is supposed to memorialize the final terms agreed by the parties after negotiation.

I emphasize to the students that the point of the PER is to protect the integrity of the written contract by barring evidence of prior or contemporaneous agreements or negotiations.

Question 4: What public policy considerations justify this rule? What would happen if there were no PER?

Answer: Without the PER, parties would introduce evidence that may contradict or change the terms of the written contract. This would defeat the purpose of having a contract in the first place. Also, the parties’ memory is slippery, self-serving, and faulty.

Thus, given these considerations, contract interpretation would become much more difficult without the PER. I also add that from a practical judicial efficiency perspective, it is difficult to interpret the language of the contract and tell the students to imagine how much harder interpreting contracts would be if extrinsic evidence of prior and contemporaneous negotiations were allowed.

Questions 5: Knowing these problems, can you think of certain circumstances that may warrant that the court consider extrinsic evidence?

Answer: Yes. Extrinsic evidence may be admitted to 1) clarify ambiguous terms; 2) include forgotten or omitted terms; or 3) include context that is specific to an industry, or to the parties’ conduct in the performance of this and other contracts.


74 Perillo, supra note 1, at § 3.2.

75 Technically speaking, the parol evidence rule is less concerned with the evidence referenced in Answer 3 to Question 5. However, industry practice is generally allowed under the rules of contract interpretation. See Richard A. Posner, The Law and Economics of Contract Interpretation, 83 Tex. L. Rev. 1581, 1588 (2005). The parol evidence rule does not govern the course of dealing (the parties’ conduct in the contract at issue after the contract is formed), as the rule prohibits the use of evidence of only the precontractual negotiations to contradict the written
This question is a bit harder, but students easily answer the first and second points. About half the time they can answer the third point, particularly if they have done the assigned reading. If students’ answers do not include this third point, I may ask more leading questions, e.g., how about allowing industry standards or conduct of the parties that may help clarify the parties’ obligations? After thinking about it, students agree that this evidence may warrant an exception.

I then write the three intuitive exceptions to the PER on the board and tell students that these commonsense exceptions align in large part with the exceptions to the PER, and that if they forget the rules during an exam, they should try to recall these more intuitive exceptions (ambiguity, forgotten terms, and industry practice). I finish the introduction by emphasizing that, in applying the PER and its exceptions, the courts seek to strike a balance between protecting the integrity of the written contract and allowing extrinsic evidence that might better inform the trier of fact.


To be clear, it is the judge who decides whether extrinsic evidence is allowed. Once allowed, the extrinsic evidence informs the jury’s decision. So, while allowing extrinsic evidence could have a significant impact on the outcome of the case, it does not technically decide the case. In theory, a jury could still decide against the party who tried to introduce the extrinsic evidence. From that perspective, the stakes of allowing extrinsic evidence are not as high as they may appear.
At this point in previous classes, I would explain the first threshold question: whether the contract is fully or partially integrated. However, this is where confusion starts. In my previous classes, I spent quite a bit of time on integration and the four-corners versus contextualist approaches. But then the issue of integration is not relevant for the rules related to the admissibility of
conflicting, clarifying, or other contextual information, and it can muddy the waters. For these reasons, I have decided to delay the discussion of complete versus partial integration for later classes.

Having discussed the purpose of the PER and when it may be warranted to allow extrinsic evidence that is otherwise barred, I explain that we will discuss the application of the rule exceptions in the context of something we all are more familiar with: crashing a party. I tell my students that the written terms in the contract, indicated by $\text{\(\checkmark\)}$, are of course already in the contract interpretation party and that it is the job of the bouncer to decide whether to allow party crashers (extrinsic evidence) into the party. I emphasize that just as a bouncer’s main job is to protect the guests and keep party crashers out (unless there are compelling reasons to do so), the goal of the PER is to protect the integrity and finality of the written contract and its terms by excluding extrinsic evidence.

I then explain that it is such a fun party that many people who were not invited (extrinsic evidence) want to crash the party. For these party crashers to get in, they must go through the bouncer (the PER) who decides whether to let them in or not by applying the “PERty” exceptions. I then say that in real life, allowing extrinsic evidence is decided by the judge and not by the jury.

**C. Should Contradictus Get Into the PERty?**

![Figure 2](image)

**Figure 2**

To start teaching the application of the PER using my analogy, I choose what in my view is the easiest one of the PER rules. So, I introduce *Contradictus*. I explain that everybody knows that *Contradictus* is an unlikable fellow who likes to contradict, disagree with, and antagonize party guests (written contract terms). I ask the students to put themselves in the shoes of the bouncer and think whether they would let *Contradictus* in given his conflicting personality. Students intuitively say that if they were the bouncer (PER), they would not let *Contradictus* in.
I then explain the criteria or rules the bouncer applies to decide whether to let party crashers into the party: First, the party crasher will be admitted if he would make the party more fun, i.e., facilitate the better interpretation of the contract. I tell the students to remember the exceptions that they intuitively thought of (ambiguity, forgotten terms, and industry practice) and are generally considered positive contributions. Conversely, if the party crasher is likely to disrupt the party, i.e., get into fights with existing guests, he is less likely to get in.

Second, in a few cases, whether a party crasher is admitted depends on how exclusive the party is. If the party has a guest list, it is considered an exclusive party. I analogize the guest list to a merger clause or integration clause, a standard provision in the contract stating that the contract is the final and exclusive expression of the parties.78 However, I explain that for purposes of understanding the exceptions, the integration determination does not generally come into play. The reason that Contradictus wants to get in the party is to contradict existing partygoers (existing written terms). After all, contradicting and having conflicts with guests is Contradictus' nature. Knowing that, I ask the students whether the PER should let Contradictus into a party even if it is not an exclusive party (a contract that does not have a merger clause). Most of them still say that they would not let Contradictus into the party. Then I state the first rule of the PER:

**Rule # 1: Contradictus is never allowed in the party. In legal terms, extrinsic evidence of prior or contemporaneous agreements that conflict with existing terms is NEVER allowed regardless of whether the contract is fully or partially integrated.**79

I finish discussing this rule by asking what the rationale for the rule is, and students circle back to where we started, i.e., respect for the integrity of the written contract, as well as the nightmarish scenario of a jury trying to reconcile terms in the contract with contradicting extrinsic evidence. Students recognize that in the contract negotiation process, parties will say all kinds of things to each other. The purpose of a written contract is to memorialize the terms that the parties consider final. Another important reason to respect the integrity of the written contract is that parties have faulty and self-serving memories.80

78 See Brian A. Blum & Amy C. Bushaw, Contracts: Cases, Discussion, and Problems 658 (4th ed. 2017) (explaining that a merger clause is also called an “integration” clause, and that common-law courts refer to contracts that have one as “integrated contracts”). Of course, this oversimplifies the rule. Whether the contract has a merger clause is an important factor but is not dispositive in the determination of whether the contract is fully integrated. Id. at 659.

79 See id. at 633.

D. Should Clarificus Get Into the PERty?

Figure 3

*Clarificus*, the next party crasher, is charming and likable, and hangs out with her sidekick *Ambiguity*. *Ambiguity* is one of the most popular and socially connected individuals and is especially well known in the party interpretation circles and parties. *Clarificus* does not have *Ambiguity*’s social network and can get into the party only if her sidekick *Ambiguity* is invited. Misunderstood and mercurial, *Ambiguity* relies on *Clarificus* to help her get her point across.

I ask students to apply the bouncer’s criteria to decide whether to allow *Clarificus* in the party.

**Question 6:** What is *Clarificus*’ purpose?
**Answer:** *Clarificus*’ purpose is to help *Ambiguity*.

**Question 7:** Is this an exclusive party?
**Answer:** Yes, it is an exclusive party because the contract has a merger clause.

I usually follow up by asking under what circumstances *Clarificus* should be allowed into the party. Many students see where I am going with this and respond that *Clarificus* can be allowed into the party only if *Ambiguity* is in the party (the contract). I then ask whether the PER should let *Clarificus* into the party even though it is not an exclusive party, i.e., the contract does not have a merger clause. Many students think that *Clarificus*’ contribution is important enough to allow her into the party regardless of how exclusive the party is. At this point, they are already thinking about the advantages of allowing *Clarificus* into the party, i.e., not allowing extrinsic evidence to clarify an ambiguous term would make it more difficult for the trier of fact to interpret the contract.

I then write the second rule of the PER:

**Rule # 2:** *Clarificus* is allowed into the party only if *Ambiguity* is already present, regardless of whether the party is exclusive. In legal terms,
extrinsic evidence that clarifies an ambiguous term of the contract is ALWAYS allowed regardless of whether the contract contains a merger clause.\textsuperscript{81}

\section*{E. Should Amicus Contextus Get Into the PERty?}

\begin{figure}[h]
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\caption{Figure 4}
\end{figure}

I tell the students that there is a group of cool party crashers who generally can get into all the parties. I call them Amicus Contextus and describe them as old or new friends of the party guests who were not technically invited to the party. I am referring to extrinsic evidence of course of performance\textsuperscript{82} (evidence of a prior term between the same parties), course of dealing\textsuperscript{83} (evidence of the parties’ conduct in the contract at issue), or usage of trade\textsuperscript{84} (industry-specific practices). Amicus Contextus want to get in the party to share stories with existing partygoers about their friends. Students are likely to say that the bouncer should let Amicus Contextus into the party, and by now they get the point that extrinsic evidence that makes it easier to interpret the contract is generally allowed. In real life, extrinsic evidence of course of performance, course of dealings, and usage of trade is offered to provide additional relevant context to a contractual relationship. This leads to the third rule:

\textbf{Rule # 3: Amicus Contextus are always allowed regardless of whether it is an exclusive party. In legal terms, extrinsic evidence of course of performance, course of dealing, and usage of trade is generally allowed regardless of whether the contract has a merger clause.}\textsuperscript{85}

\begin{thebibliography}{99}
\bibitem{81} Ferdinand S. Tinio, Comment note, \textit{The Parol Evidence Rule and Admissibility of Extrinsic Evidence to Establish and Clarify Ambiguity in Written Contract}, 40 A.L.R.3d 1384 (1971).
\bibitem{82} \textit{Perillo}, supra note 1, at § 3.17.
\bibitem{83} \textit{Id.}
\bibitem{84} \textit{Id.}
\bibitem{85} \textit{Id.} at §§ 3.6, 3.17; \textit{see also Columbia Nitrogen v. Royster Co.}, 451 F.2d 3 (4th Cir. 1971); \textit{accord C-Thru
F. Should Supplementus Get Into the PERty?

I warn the students that allowing Supplementus into the party is a more involved decision. Supplementus is an unpredictable character. While sometimes he is helpful in ensuring that other party guests are understood (like Clarificus), other times Supplementus may be viewed as conflictive with other party guests (like Conflictus). For this reason, it is much harder for the bouncer to let Supplementus in. In addition to asking why Supplementus is getting into the party, the bouncer will decide based on 1) whether the party is exclusive (if there is a guest list), and 2) whether Supplementus would have been naturally omitted from the guest list. Regarding exclusivity, the bouncer considers many factors to decide whether the party is exclusive, with the existence of a guest list being an important but non-dispositive factor. I say a contract is considered final and exclusive when, among other things, it contains a merger/integration clause. Regarding the second consideration, I explain that the determination as to whether Supplementus would have naturally been omitted from the guest list is tricky. Perhaps Supplementus was omitted from the list because he does not usually show up. A real-life example would be that the parties sign a contract for the purchase of a house but do not include a clause related to the icehouse that sits on the property. One could see how that supplemental information would have been naturally omitted, and the judge would probably allow that evidence if the contract is not found to be fully integrated. With that I write the fourth and final rule:

**Rule # 4:** Supplementus is allowed into the party if the party is not exclusive, and she would have naturally been forgotten. In legal terms, extrinsic evidence that supplements an existing term of a contract is allowed if (1) the contract does not have a merger clause and (2) the evidence would have naturally been omitted.  

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Container v. Midland Mfg., 533 N.W.2d 542 (Iowa 1995).

Restatement (Second) of Conts. § 216 (1981).
After introducing the rules using the PERty analogy and drawings, most students (in my experience) feel more at ease with the rules and are better able to apply them. As explained above, by using this analogy, I seek to anchor the unfamiliar PER concepts to a familiar concept: the party. Once finished with the analogy, which usually takes about forty-five minutes, I finish the class by asking students to answer multiple-choice bar questions on the four exceptions we just learned. Students do well on identifying the correct answer by applying the exceptions they just learned.87

As a caveat, no analogy is perfect; but what is lost in technical precision is gained in making the material more accessible by drawing on familiar knowledge. As detailed in Part IV, students’ feedback has been largely positive.88

IV. Students’ Feedback

After the perceived success of using drawings and analogies to teach the PER in my own class, I taught it in other professors’ contracts classes to get the students’ feedback. The classes included Contracts I, Contracts II, and Sales of Goods. In each of these classes, I asked the students to provide feedback and rate the class based on several questions.89 This Part summarizes the students’ feedback.

Question: Overall, how helpful were the drawings in conveying the legal concepts?

Answers: Extremely Helpful: 70%; Very Helpful: 27%; Somewhat Helpful: 1.5%; Not Helpful: 1.5%.90

Question: How helpful were the drawings in preparing you to answer the multiple-choice questions?

Answer: Extremely Helpful: 57%; Very Helpful: 40%; Somewhat Helpful: 1.5%; Not Helpful: 1.5%.

87 Pedagogic Research also shows that assessing the students soon after they have learned new material facilitates encoding into long-term memory. See, e.g., Chunliang Yang et al., Enhancing Learning and Retrieval of New Information: A Review of the Forward Testing Effect, 3 NPJ SCI. OF LEARNING 1, 1 (2018).

88 While the survey tests the students’ perceptions on the effectiveness of the PER teaching session, it does not test the students’ recall ability. Anecdotally, the students who have heard my class tell me that “Conflictus never gets into the party.” To test students’ ability to recall would be difficult but not impossible. To test the effectiveness of my teaching approach, I would also have to teach a control class using a traditional teaching approach, i.e., no analogy or drawings. Then, I would have to test both classes on the rules to determine whether the class taught using the PERty approach has better recall of the PERty exceptions.

89 Paul Figueroa, Students’ Feedback on the PER Class (Oct. 21, 2022) (on file with the author) (data was calculated and aggregated from students’ feedback for three different classes that took place on October 28, 2021, February 2, 2022, and February 9, 2022).

90 Id.
Question: Overall, how effective was the class?
Answer: Extremely Effective: 78%; Very Effective: 16%; Somewhat Effective: 6%; Not Effective: 0%.

Question: How often do professors use drawings to teach legal concepts?
Answer: Never: 22%; Sometimes: 78%; Often: 0%; Very Often: 0%.

The use of analogies and drawings resonated with many of the students:
“I love this style. Visual aids are very, very helpful for me. I’d take all my law school classes from you if I could!”

“I am highly visual, so this was extremely helpful. Also, I learn much more effectively when showing concepts in practiced application, so this was very effective and helpful.”

“The analogies/drawings did help to solidify the PER into long term memory (and to make the material more interesting to learn!)”

“Loved drawing/analogy, good multiple-choice questions to illustrate concepts.”

“This class was very informative because the drawings allowed for a better understanding of what may enter the contract, and how the parol evidence filters extrinsic evidence.”

“Better than without the drawings for sure. More fun, easier to follow. I understand more with the visuals than after the readings.”

“I love the drawings because it shows how the different types of evidence interact with the PER differently.”

“The analogy of the house party and bouncer worked really well but the discussion of Gianni [a case] felt a little abridged.”

There were, of course, one or two negative comments. Notably, one student said, “I am more confused about PER now than before class.” Even though most of us professors know that we cannot please everyone, sometimes one negative comment can completely undo a hundred positive comments. However, I am still happy with the overall positive results across four different classes. Most students found the drawings to be extremely or very helpful.
(73%) and the class to be extremely effective (78%). These empirical research results align with the scientific research on the effectiveness of using analogies and visuals.

Conclusion

As professors, we face multiple challenges in the classroom. We teach students who have varying levels of preparedness, who are not often familiar with complex legal concepts, and whose verbal working memories and cognitive loads are usually maxed out.91 We are also competing for their attention with other professors who have different styles and expectations, and with many academic and personal demands, not to mention ever-growing social media and online distractions.

This article proposes using analogies to tap into the students’ prior knowledge and drawings to leverage their visual memories, which are generally underutilized by more traditional auditory and verbal law school instruction. Through analogies and drawings, new concepts move quickly from sensory to working and long-term memory, from where they can be more easily recalled and accessed for higher-level thinking activities. Also, these techniques are enjoyable for both students and professors, at least as enjoyable as learning the PER and exceptions can be. Finally, these techniques provide a mental break from traditional auditory instruction, and students emerge refreshed to jump back into the abyss of the more traditional PowerPoint and lecture purgatory.

91 Hillary Burgess, supra note 64, at 29.