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Short bio:

Dr. Maria Cahill is a member of faculty at the School of Law at University College Cork, in Ireland. She teaches courses in constitutional law and constitutional theory to undergraduate and postgraduate students, as well as providing methodological training for doctoral students. She developed an innovative module called Advanced Legal Reasoning which has been running for the past seven years with tremendous success. Her research interests lie in the areas of constitutional law and constitutional theory as well as the principle of subsidiarity and the position of social groups vis-à-vis the law. Her work has been published, *inter alia*, in the Cambridge Law Journal, the International Journal of Constitutional Law, the American Journal of Jurisprudence, the University of Queensland Law Journal and the German Law Journal. In 2017, she was recognised as Early Career Researcher of the Year at UCC.

Proposal

Title: Teaching Thinking: Piloting Advanced Legal Reasoning through Inverted Learning

Abstract:

Seven years ago, Advanced Legal Reasoning was first offered as a final year module at University College Cork, Ireland. Not only was this course pioneering in its ambition to teach students how to reason well, it also did so by developing an innovative active learning pedagogical approach called Inverted Learning, a modified version of the 'flipped classroom' phenomenon. The four principles of Inverted Learning, *viz.* (1) first exposure responsibility; (2) support for experimentation; (3) expectation of mastery; and (4) humanization of the classroom, inculcate the virtues of intellectual autonomy, intellectual courage, intellectual humility and intellectual charity, respectively, are valuable in the development of capacity for legal reasoning, but their usefulness goes beyond this specific

context. This article explains the principles of Inverted Learning, outlines their application in Advanced Legal Reasoning and concludes by suggesting their transferability to other disciplinary contexts where critical thinking is a key intellectual ambition.

Keywords: Critical thinking, flipped classroom, inverted learning, intellectual virtues, legal reasoning

Introduction

Law schools typically excel at teaching the content of the law and, thanks to a recent push towards clinical education (including skills modules which teach legal writing, oral presenting, problem solving and mooting), we also now beginning to excel in terms of teaching students how to communicate the content of the law.¹ Between having knowledge of the content of the law and being able to communicate that knowledge in the context of concrete scenarios, however, there is an intermediate step: law students should be able to identify fallacious arguments, expose contradictions, construct counter-arguments and assess their strength, and confidently employ the dialectical process in order to arrive at the most defensible conclusion.² This is necessary not least because many of our central legal tests expressly invoke the concept of reason: ‘the reasonable person’, beyond reasonable doubt, the test of reasonableness, reasonably foreseeable, reasonable expectation, reasonable remedies, rationally connected, rational basis, and so on. Many other legal tests implicitly rely on the concept of reason: tests of necessity, tests of legitimacy of aim, tests of intention, presumptions of innocence and constitutionality, consideration and unjust enrichment, the principles of equity, and so on. Furthermore, the adversarial system itself depends the best arguments on one side being pitted against the best arguments on the other side; it places its faith firmly in reason. In short, law schools, and law students, need also to excel at legal reasoning; at teaching students how to think.

Since law puts so much of its faith in reason, law students therefore need to have confidence both in the power of reason in distinguishing weak arguments from strong arguments and in their own personal capacity to reason. Seven years ago, Advanced Legal Reasoning, a module dedicated to the project of increasing the capacity of our students to reason well and thereby increasing their faith in reason and its indispensable role within the legal system was offered for the first time as an optional

* School of Law, University College Cork, Ireland. Comments welcome: maria.cahill@ucc.ie. With thanks to Sherman Clark and Patrick O’Callaghan for help in the formulation of the ideas in this paper. The usual disclaimer applies.

¹ Frank S. Bloch (ed.), *THE GLOBAL CLINICAL MOVEMENT: EDUCATING LAWYERS FOR SOCIAL JUSTICE* (Oxford University Press 2011); Shuvro Prosun Sarker, Anirban Chakraborty & Shovnak Chatterjee, *INTEGRATED CLINICAL LEGAL EDUCATION* (Universal Law Publishing, 2014); Jonny Hall & Kevin Kerrigan, *Clinic and the Wider Law Curriculum*, 16 *INTERNATIONAL JOURNAL OF CLINICAL LEGAL EDUCATION*, 25–37 (2011). We can tend to think of law modules as falling into either the category of substantive law or the category of clinical education, however the module discussed in this paper eschews that dichotomy. But cf. Linda H. Edwards, *The Trouble with Categories: What Theory can Teach us about the Doctrine-Skills Divide* 64(2) *JOURNAL OF LEGAL EDUCATION* 181 (2014) (rejecting a strict dichotomy between doctrine and skills, and proposing instead a model of foundation, bridge and capstone courses) [hereinafter Edwards].

² Sherman Clark believes that a strict dichotomy between ‘practical training’ (what I am calling ‘skills’) and ‘the development of deeper capacities’ (by which he means ‘habits of mind that ...can help one wrestle with deeper issues’, which is therefore largely co-extensive with what I intend by ‘advanced legal reasoning’) is ‘a false one’. Sherman Clark, *Law School as Liberal Education* 63(2) *JOURNAL OF LEGAL EDUCATION* 235 (2013), at 236 [hereinafter Clark].

final year module at University College Cork in the south of Ireland.³ At the time, to my knowledge, there was only one such course in the English-speaking world, which was – and is – taught by Dr. James McLean at the University of Southampton.⁴ Over the course of twelve weeks, the course probes the requirements of legal reasoning in the context of particular cases. Topics include theories of interpretation and precedent, consequentialism, proportionality, and jurisdictional issues, as well as the tensions between universal rules and ‘hard cases’ and between certainty and arguability. Each topic is paired with a particular legal decision that somehow illustrates the problem; often, the cases are already familiar to the student, but they have previously only been focused on how the question of legal content was resolved. Assessment measures participation in class, how well the student can critique a particular judgment in the light of the theories and topics we have studied and how well the student, imagining himself or herself as the judge hearing that particular case at that particular time, can write a replacement judgment which demonstrates his or her skills of advanced legal reasoning.

The Principles of Inverted Learning

It was obvious from the beginning that a module designed to develop the students’ habits of mind to promote their capacity to engage in legal reasoning could not be taught using the traditional lecture format.⁵ Instead, students would need to strengthen their own intellectual muscles in order to be able to play in the big leagues; they would need to develop intellectual virtues through active learning.⁶ The theory of Inverted Learning was developed by drawing on alternative approaches to education that are already existent. One of these is the ‘flipped classroom’ phenomenon which is growing in strength in the context of high school education in the United States.⁷ Simply put, ‘flipping the classroom’ means that students do their schoolwork at home (watching videos in which the teacher conveys knowledge and explains concepts) and their homework at school (answering questions, solving problems, applying principles, demonstrating understanding). In the classroom, the role of the teacher, as he or she circulates around the room helping individual students in the areas in which they have difficulty, is transformed from that of a ‘sage on the stage’ to that of a ‘guide on the side’.⁸ The flipped classroom phenomenon is gingerly migrating to the university setting,⁹ although it is not

³ As it happened, this course picked up the residual 5 credits that remained when a compulsory final year module in Jurisprudence was reduced to 5 credits. Advanced Legal Reasoning, since it incorporates elements from theory, doctrine and skills (and is for that reason perhaps best characterised as a ‘capstone course’ in Edwards’s sense which ‘requires students to bring together a broad span of legal knowledge and competence into a kind of gestalt educational experience’. Edwards, *supra* note 1, at 223.) Such a course cannot replace a jurisprudence course, however, even if there is some complementarity between the two. See, e.g., Seow Hon Tan, *Teaching Legal Ideals through Jurisprudence* 43(1) *THE LAW TEACHER* (2009) 14-36.

⁴ Many law schools teach legal reasoning or legal argument as one small part of an introductory legal skills module, but there are still very few courses which dedicate themselves specifically to this task.

⁵ JOHN BIGGS, *TEACHING FOR QUALITY LEARNING AT UNIVERSITY* (1999), 73-74; GEORGE BROWN AND MADELEINE ATKINS, *EFFECTIVE TEACHING IN HIGHER EDUCATION* (1990), 11, 52.

⁶ JASON BAEHR, *THE INQUIRING MIND: ON INTELLECTUAL VIRTUES AND VIRTUE EPISTEMOLOGY* (2011), Chapter 2. [hereinafter BAEHR].

⁷ See, e.g., Aaron Sams, “The Flipped Class: Shedding Light on the Confusion, Critique and Hype” *The Daily Riff* November 11, 2011; Tina Rosenberg, “Turning Education Upside Down” *New York Times* October 9th, 2013.

⁸ Alison King, “From Sage on the Stage to Guide on the Side” (1993) 41(1) *College Teaching* 30. [hereinafter King].

⁹ William R. Slomanson, *Blended Learning: A Flipped Classroom Experiment* 64(1) *JOURNAL OF LEGAL EDUCATION* 93 (2014) [hereinafter Slomanson].

without its detractors.¹⁰ It is not the technical requirements of the ‘flip’¹¹ which interest me so much as the pedagogical principles behind the approach: the focus on participation, process, skills development¹² and interdependence in the learning environment.¹³ The remainder of this section will explore those principles, which seem to me to be very attractive and worthy of careful consideration. The four principles which I identify as constituting an inverted learning approach are (1) First Exposure Responsibility, (2) Support for Experimentation, (3) Expectation of Mastery, and (4) Humanization of the Classroom, each of which promotes a particular intellectual virtue in the students.

(1) First Exposure Responsibility: The most decisive innovation of the flipped classroom experiment is that students have responsibility at what we might call the ‘first exposure stage’; they must manage their introduction to the material. In the traditional lecture setting,¹⁴ the teacher has sole responsibility at the first exposure stage: he or she researches all the material necessary to present a new topic or concept to students in a lecture. When we teach caselaw, we introduce new cases by telling students the fact scenario, explaining to them the point of law that is at issue, laying out the arguments for the plaintiff and the arguments for the defendant, discussing the judgment of the court, the grounds for appeal and the final result. Putting first exposure responsibility on the shoulders of the students has many advantages: (a) it allows students to pursue first exposure at their own pace, pausing and re-reading the relevant material if necessary, (b) it mimics the professional environment and thus builds their courage and capacity to digest unfamiliar material, (c) it means that students’ engagement at ‘second exposure stage’ is more informed, more focussed, and more active, and (d) it conserves the expertise of the lecturer for the second exposure stage, when discussion of the material can move past a basic introduction and towards a more nuanced and intellectually sophisticated engagement. When students have first exposure responsibility, the virtue which is developed is intellectual autonomy, as the students gain command over the material through their independent intellectual effort.¹⁵

(2) Support for Experimentation: A corollary of first exposure responsibility is that there is support for experimentation. The traditional lecture format mitigates against experimentation insofar as a successful lecture in which the teacher bears first exposure responsibility presents a package of knowledge to the students. In this context, the lecturer tells the students what she wants them to

¹⁰ See, e.g., David Plotnikoff, “Classes should do hands-on exercises before reading and video, Stanford researchers say”, *Stanford Report*, July 16th, 2013.

¹¹ Since the idea of the ‘flipped classroom’ seems to be intrinsically linked to the use of technology to deliver knowledge to students (cf. Michele Pistone, *Law Schools and Teaching: Where we are and Where we are Heading* 64(4) *JOURNAL OF LEGAL EDUCATION* 586 (2015)), I’m using the broader and more philosophical term ‘inverted learning approach’ to convey the pedagogical principles behind it.

¹² Which principles are shared by the theory of discovery learning. Cf. Daniel Pascoe, “How can Legal Education speak to the Discovery-enriched Curriculum?” 4(1) *ASIAN JOURNAL OF LEGAL EDUCATION* 17 (2017) & Jerome S. Bruner, *The Act of Discovery*, 31(1) *HARVARD EDUC. REV.* 21 (1961).

¹³ Anne-Marie Cotter, “Teaching Law for the Real World: Bridging the Gap between Law School and the Legal Profession” 4(1) *ASIAN JOURNAL OF LEGAL EDUCATION* 71 (2017).

¹⁴ Alison King calls this “the transmittal model”, which “assumes that the student’s brain is like an empty container into which the professor pours knowledge”. King, *supra* note 15, at 30.

¹⁵ See the webpages of the Foundation for Critical Thinking, in particular, <https://www.criticalthinking.org/pages/valuable-intellectual-traits/528>.

know and (perhaps unwittingly) conditions them to interpret the material the way that she interprets it.¹⁶ However, if the students read primary sources at first exposure stage without having previously had their intellectual response conditioned by the teacher's interpretation of the materials, then inverted learning certainly encourages experimentation. The virtue being cultivated by this principle is intellectual courage,¹⁷ as the students, in the absence of a prepared package of knowledge which they must passively accept, learn instead to determine for themselves how to interpret the material and whether it convinces them, and later to express those convictions all the while doing so without the security of knowing that their views conform to those of the group or those of the teacher. It is this risk of non-conformity, with its attendant social penalties, which demands that the students develop not only intellectual autonomy but also intellectual courage.

(3) Expectation of Mastery: Mastery is only a legitimate expectation if there is a real opportunity for engagement and experimentation, but at the same time experimentation is perilous in the absence of an expectation of mastery. This expectation of mastery is perhaps the greatest teleological difference between an inverted learning approach and the traditional lecture setting. In the context of the latter, teachers are so constrained by time pressures, by large groups, and by the sheer volume of material that must be covered that, almost of necessity, they must become practically ambivalent about the extent to which their students have mastered the course; term moves on relentlessly, indifferent to the level of student learning. Even the physical environment typically conduces to put the spotlight on the teacher and how well he or she explains, rather than on the students and how much they have understood. Some students may ask questions which expose comprehension difficulties, and sensitive or responsive teachers can devise methods to get in-class feedback on the levels of understanding of particular ideas, but most of the time lectures proceed without the teacher – or even the students themselves – becoming aware of what the students do not grasp. An inverted learning approach uses the expertise of the lecturer at second exposure stage to ensure that the students are gaining mastery over the material. In this way, it overcomes the deficiencies of entirely unassisted learning that characterises some of the discovery learning theories.¹⁸ The pursuit of mastery requires that mistakes of comprehension and mistakes of appreciation on the part of students must both be overcome. Known or easily knowable mistakes are often self-corrected or peer-corrected without intervention, and if not the teacher can assist the process of their correction by deploying the Socratic techniques of dialectic and elenchus, most frequently by asking leading questions and engaging in *reductio ad absurdum* respectively. The virtue that is promoted here is, of course, intellectual humility: consciousness of the limits of one's own knowledge and the epistemic limits of the particular discipline, awareness of one's own assumptions and prejudices, and docility in the face of superior knowledge and understanding. As Sherman Clark puts it: intellectual humility is 'seeing clearly how

¹⁶ To my mind, the teacher who posts a video of his or her lecture on YouTube for students to view at the first exposure stage replicates, and perhaps even exacerbates this particular disadvantage of the traditional lecture format, for this reason I would argue that giving students greater responsibility at the first exposure stage is the preferable option.

¹⁷ See also, BAEHR, *supra* note 12, Chapter 9.

¹⁸ Cf. Richard E. Mayer, *Should There be a Three-strikes Rule against Pure Discovery Learning?* 59(1) AM. PSYCHOL. 14, 17 (2004); Paul A. Kirschner, John Sweller & Richard E. Clark, *Why Minimal Guidance during Instruction Does not Work*, 41(2) EDUC. PSYCHOL. 75–86, 79 & 83–84 (2006).

deep something really is’ and therefore ‘is not the opposite of clear thought, but the consequence of it’.¹⁹ Understood in this way, intellectual humility is the servant of mastery rather than the purveyor of shame.

(4) Humanization of the Classroom: The fourth principle of the inverted learning approach is that it helps to humanize the classroom.²⁰ Perhaps in response to the charge that the flipped classroom relies too much on technology, its proponents are keen to emphasize that flipping the classroom humanizes the classroom.²¹ Their explicit or implied critique of the traditional learning environments is that it is dehumanized – the teacher stands at the front of the room and conveys information that could be conveyed through a myriad of other means (whether using old technology such as books, articles, case reports or new technology such as videos, podcasts or blogs), while the students sit and absorb the information as best they can (using old technology such as pencils and pens or new technology such as laptops and iPads²²). The expectation is that the students will not communicate at all with each other and only rarely communicate with the lecturer. Since inverted learning places the responsibility on students for the first exposure stage, the second exposure stage is no longer about communicating heavy volumes of information, but about encouraging experimentation and expecting mastery. In short, whereas traditional learning environments are oriented around knowledge abstracted from learning, inverted learning environments are oriented around learning for the sake of mastery. For this reason, as mentioned above, inverted learning extracts a greater benefit from the expertise of the teacher; many sources can be used to convey information, but very little substitutes for a humanized learning environment in which the students work towards mastery of the subject in co-operation with their peers and under the guidance of the expert teacher. The co-operation which is required includes open-mindedness in the fact of others’ positions, fair-mindedness in their evaluation and presentation, empathy with those who make known and unknown mistakes. The virtue being practised here is intellectual charity. Partly, this is just civility, but it also has an intellectual benefit: intellectual charity is another servant of mastery because the ability to engage with the strongest form of the opposing argument is necessary for the development of the most defensible position.

¹⁹ Clark, *supra* note 2, at 241.

²⁰ A by-product of which is the development of the emotional intelligence of the students. Hugh Brayne, *A Case for Getting Law Students Engaged in the Real Thing – the Challenge to the Saber-Tooth Curriculum* 34(1) *THE LAW TEACHER* 17-39 (2000) (arguing that we need to consider development of emotional intelligence on the part of the students)

²¹ Slomanson, *supra* note 16, at 99-101.

²² Cf. Emily Grant, *At the [Other Side of the] Lectern* 64(1) *JOURNAL OF LEGAL EDUCATION* 103 (2014) (noting from her experience as a ‘student’ in the lectures of her colleagues that the odds were two-to-one that students with laptops were using them for non-class related purposes); Nancy G. Maxwell, *From Facebook to Folsom Prison Blues: How Banning Laptops in the Classroom made me a Better Law School Teacher* 14 *RICHMOND JOURNAL OF LAW AND TECHNOLOGY* 4 (2007). For other studies showing the negative impact that laptops have on student learning, see Robin H. Kay & Sharon Lauricella, *Exploring the Benefits and Challenges of Using Laptop Computers in Higher Education Classrooms: A Formative Analysis*, 37 *CAN. J. LEARNING & TECH.* 1 (2011), James M. Kraushaar & David C. Novak, *Examining the Effects of Student Multitasking with Laptops during the Lecture*, 21 *J. INFO. SYSTEMS EDUC.* 241 (2010).

Applying the Principles of Inverted Learning to Legal Reasoning

At the beginning of this module, students are invited to take the course (after all it is an elective module) if they are prepared to accept the four conditions that are intrinsic to the inverted learning approach: bearing responsibility for first exposure stage means that they must *be prepared* and thereby demonstrate and develop intellectual autonomy; engaging in experimentation means that they must *be brave* and thereby demonstrate and develop intellectual courage; challenging themselves to meet the expectation of mastery means that they themselves will also sometimes *be wrong* and need to demonstrate and develop intellectual humility, and getting the best out of the humanization of the classroom means that they must *be kind* thereby demonstrating and developing intellectual charity. Deploying these inverted learning principles in the context of the Advanced Legal Reasoning module, I deliberately confined the scope of the material to only one primary source (an excellent work of scholarship by Neil MacCormick entitled *Rhetoric and the Rule of Law: a Theory of Legal Reasoning* discusses a theory of interpretation or the concept of consequentialism, or so on) and one case report per topic. Although I lead discussion of the theory or concept during the first hour of a two-hour class each week, I remain entirely silent for the first twenty minutes of the second hour, during which time the students discuss the judgments in the light of that theory or concept. The class takes place in an environment which facilitates discussion: students to all sit around a boardroom table, facing each other.²³

Being prepared: students of Advanced Legal Reasoning read the case prior to coming to class, knowing that for the first twenty minutes of the hour-long discussion of this case, I will not make a single contribution. They cannot rely on me to tell them the fact scenario, the point of law that was at issue, the arguments of the parties, or the ruling of the judge.

Being brave: bearing responsibility at the first exposure stage by reading the case report in advance and without having received a ready-made interpretive lens from the lecturer means that students need to have and develop confidence in their own abilities to make their own intellectual judgments about the material that they read. Because there is no video accompanying the first exposure stage, but only the primary source in the form of the case report itself, the students really are free to form their own judgments. Inevitably, their perspectives will sometimes be conflicting, and as a result everybody has the opportunity to re-consider their initial perspectives. The exhortation to be brave is an exhortation against intellectual conformity – if for no other reason than the fact that if everybody conforms to the same position nobody is required to defend that position using reason.

Being wrong: the freedom to experiment does result in mistakes being made and the lines of argument disappearing into rabbit holes. Most often, however, known and easily knowable mistakes are addressed and corrected before the first twenty minutes have elapsed. As I monitor the contributions and take notes during this period, I can correct any outstanding mistakes of this type thereafter. In dealing with these mistakes, expertise is needed in order to spot ill-founded presumptions, misplaced

²³ Eddy Nahmais notes that such an arrangement is more conducive to dialogue between the students: Eddy Nahmias, *Practical Suggestions for Teaching Small Philosophy Classes* 28 *TEACHING PHILOSOPHY* 59 (2005).

criticism and improper logical leaps and so assist the students in driving the discussion forward. Quite often, individual students will openly admit that they were wrong, and these are the students who have mastered not only the material, but also their own engagement with the material, using intellectual humility.

Being kind: despite the freedom with which the students discuss and despite all the mistakes that have been made, I do not remember a single disparaging remark that was directed to a fellow student during seven years of discussions. But the final exhortation is meant to convey more than simply the absence of mean asides. Students need to actively co-operate with each other, to correct each other's mistakes, to wrestle with the best versions of the opposing arguments, to bring the best of their intellectual strength to the table inside the room and to respect the confidentiality of the discussions when they leave the boardroom. They are far more dependent on each other than they would be in a traditional lecture setting – they are players on the same team, and each one who performs well inspires the others to play at a higher level.

Conclusion

Neither the principles of inverted learning nor the intellectual virtues they cultivate are in any sense exclusive to legal education, even if law does place an institutional premium on the quality of reasonableness, both in its guiding concepts and its classical adversarial process. Critical thinking is a prized capacity in many disciplines, from the humanities to the sciences, and therefore students of all disciplines where critical thinking is prized will benefit from the opportunity to participate in the active learning practices that are encouraged by the Inverted Learning paradigm. By taking first exposure responsibility for reading and engaging with key texts in their discipline, they will thereby develop the virtues of intellectual autonomy, intellectual courage, intellectual humility and intellectual charity.

References

- Baehr, Jason, *The inquiring mind: on intellectual virtues and virtue epistemology* (2011).
- Biggs, John, *Teaching for quality learning at university* (1999).
- Bloch, Frank S. (ed.), *The Global Clinical Movement: Educating Lawyers for Social Justice* (2011).
- Brown, George & Atkins, Madeleine, *Effective teaching in higher education* (1990).
- Brayne, Hugh, *A case for getting law students engaged in the real thing – the challenge to the saber-tooth curriculum* 34(1) *The Law Teacher* 17-39 (2000).
- Bruner, Jerome S., *The Act of Discovery*, 31(1) *Harvard Educ Rev.* 21 (1961).
- Carey, Benedict, “Why flunking exams is actually a good thing”, *New York Times* Sept. 4, 2014.
- Clark, Sherman, *Law school as liberal education*, 63(2) *Journal of Legal Education* 235 (2013).
- Clark, Sherman, *The seventh letter and the Socratic method*, 49(1) *University of Michigan Law Reform Caveat* 52 (2015).
- Cotter, Anne-Marie, *Teaching law for the real world: bridging the gap between law school and the legal profession* 4(1) *Asian Journal of Legal Education* 71 (2017).
- Crooks, Shelagh, *Teaching for argumentative thought* 32 *Teaching Philosophy* 247 (2009).
- Danker, Brenda, *Using flipped classroom approach to explore deep learning in large classrooms* 3(1) *IAFOR Journal of Education* 171 (2015).
- Edwards, Linda H., *The trouble with categories: what theory can teach us about the doctrine-skills divide* 64(2) *Journal of Legal Education* 181 (2014).
- Grant, Emily, *At the [other side of the] lectern* 64(1) *Journal of Legal Education* 103 (2014).
- Hall, Jonny & Kerrigan, Kevin, *Clinic and the wider law curriculum*, 16 *International Journal of Clinical Legal Education* 25–37 (2011).
- Kay, Robin H. & Lauricella, Sharon, *Exploring the benefits and challenges of using laptop computers in higher education classrooms: a formative analysis*, 37 *Can. J. Learning & Tech.* 1 (2011).
- ing, Alison, “From sage on the stage to guide on the side” (1993) 41(1) *College Teaching* 30.
- Kirschner, Paul A., Sweller, John & Clark, Richard E. “Why minimal guidance during instruction does not work” 41(2) *Educ. Psychol.* (2006).

Kraushaar, James M. & Novak, David C., *Examining the effects of student multitasking with laptops during the lecture*, 21 J. Info. Systems Educ. 241 (2010).

MacCormick, Neil, *Rhetoric and the rule of law: a theory of legal reasoning* (2005).

Maxwell, Nancy G., *From Facebook to Folsom Prison Blues: How Banning Laptops in the Classroom made me a Better Law School Teacher* 14 Richmond Journal of Law and Technology 4 (2007).

Mayer, Richard E. *Should there be a three-strikes rule against pure discovery learning?* 59(1) AM. PSYCHOL. 14, 17 (2004).

Nahmias, Eddy, *Practical Suggestions for Teaching Small Philosophy Classes* 28 *Teaching Philosophy* 59 (2005).

Pascoe, Daniel, *How can legal education speak to the discovery-enriched curriculum?* 4(1) *Asian Journal of Legal Education* 17 (2017).

Palfreyman, David, *The Oxford Tutorial: Thanks, you taught me how to think* (2008).

Pistone, Michele, *Law Schools and Teaching: Where we are and Where we are Heading* 64(4) *Journal of Legal Education* 586 (2015).

Plotnikoff, David, "Classes should do hands-on exercises before reading and video, Stanford researchers say", *Stanford Report*, July 16th, 2013.

Rosenberg, Tina, "Turning Education Upside Down" *New York Times* October 9th, 2013.

Sams, Aaron, "The Flipped Class: Shedding Light on the Confusion, Critique and Hype" *The Daily Riff* November 11, 2011.

Sarker, Shuvro Prosun, Chakraborty, Anirban & Chatterjee, Shovnak *Integrated Clinical Legal Education* (2014).

Slomanson, William R., "Blended Learning: A Flipped Classroom Experiment" 64(1) *Journal of Legal Education* 93 (2014).

Tan, Seow Hon, "Teaching Legal Ideals through Jurisprudence" 43(1) *The Law Teacher* (2009) 14-36.

Walsh, Tamara, "Putting Justice back into Legal Education" 17(1&2) *Legal Education Review* 119 (2008).