

Murray C, Brown K.

[Enhancing Interactivity in the Teaching of Criminal Law: Using Response Technology in the Lecture Theatre.](#)

In: Gledhill, K; Livings, B, ed. The Teaching of Criminal Law: The pedagogical imperatives. Routledge, 2016, pp.46-59

Copyright:

This is an Accepted Manuscript of a book chapter published by Routledge in on The Teaching of Criminal Law: The pedagogical imperatives, available online:
<http://www.routledge.com/9781138841994>.

Link to article:

<http://www.routledge.com/9781138841994>

Date deposited:

21/09/2016

Embargo release date:

01 March 2018



This work is licensed under a

[Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International licence](#)

Enhancing Interactivity in the Teaching of Criminal Law: Using Response Technology in the Lecture Theatre

*Kevin J Brown and CRG Murray**

Abstract

Educational theorists have long recognised the limitations of the traditional didactic lecture as a basis for student learning and engagement with degree-level problems. Nonetheless, such lectures still dominate timetables within UK law schools. A common criticism of the lecture as a mode of teaching is that there is little scope for interaction between the student body and the lecturer, a marked change in educational environment for students fresh from secondary-level education. In an effort to address this issue, we undertook an action-research project using TurningPoint classroom response technology to generate interaction between the lecturer and students during large-cohort law lectures. This system allowed students to respond in real-time to multiple-choice questions posed in a lecture, thereby offering an alternative to more traditional methods of encouraging class participation in lectures, such as the Socratic method. In our study the use of these devices was trialled in first and second year undergraduate law lectures at Newcastle University (UK). Subsequently, students' views on the use and benefits of the technology were investigated through questionnaires and focus groups. The results of these surveys suggest that such technology can enhance the student experience of large-cohort lectures.

* Kevin J Brown is a Lecturer at Queen's University Belfast and CRG Murray is a Senior Lecturer at Newcastle University. The project upon which this research is based was funded by the Newcastle University Innovation Fund. Our thanks to Ben Middleton (University of Sunderland) for his advice and encouragement regarding earlier drafts of this chapter. Any errors remain our own.

Introduction

Over the last two decades digital technology has played an influential role in shaping the institution of the United Kingdom (UK) Law School. Access to the Internet, email communication, electronic research databases and online learning platforms are shaping how students learn and how staff teach and research. Despite these changes the didactic large-cohort lecture survives in many UK law schools as the primary method of delivering material, particularly in core modules on undergraduate programmes. With a rapid expansion of the number of undergraduate students studying law in the UK in recent years (Spencer, 2013) this reliance upon the lecture is unlikely to change. Whilst these traditional lectures are, at least from the perspective of university resource management, an efficient means of transmitting information, they do little to stimulate independent thought or to develop students' skills at processing such information (Beard, 1970, pp.104-105). Technology has had some impact on the typical large-cohort law lecture. Presentation software, such as PowerPoint has become popular and can according to some studies increase levels of student engagement and enthusiasm in lectures (for a summary of research studies see Susskind, 2005). Moreover, lecture capture and playback facilities are becoming more common, with advocates arguing that the technology allows students to reprise complex material that they found difficult to process in class leading to improved exam performance for some (Terry, 2015). Neither development, however, fundamentally alters the didactic mode of delivery inherent within the lecture format (Baer, 1997, p.128).

This chapter examines the strengths and weaknesses of real-time classroom response technology as a means of generating interaction between the lecturer and large cohorts of students within the lecture hall. Research has found that both lecturers and

students find establishing genuine interactivity to be problematic in this teaching environment due to a range of social, psychological and logistical factors (Black, 2005). We begin by exploring the role of interactive lectures in the context of legal education and in particular the Socratic method of lecturing. The chapter then examines the growing body of literature, both general (Simpson and Oliver, 2007) and specific to legal education (Easton, 2012), which identifies the capacity of Classroom Response Systems (CRS), popularly known as “clickers”, to generate interactivity in large-group teaching. The remainder of the chapter explores an action-research project (Zuber-Skerritt, 1992, pp.1-2), conducted at Newcastle Law School (UK) that integrated educational technology into core undergraduate law lectures in both Criminal Law and Public Law in an effort to enhance our student body’s in-class engagement. In light of this experience we evaluate whether the application of CRS technology offers an alternative to traditional methods of encouraging class participation in large cohort lectures and some of the shortcomings of this approach.

Generating Interactive Law Lectures

However laudable the intention to allow students to hone and voice their own opinions in lectures might be, in UK law schools open questions to the massed ranks of students in a core undergraduate lecture rarely elicit rapid or direct responses. When a response is proffered, and it often will be if the academic perseveres (the wounded silence of an unanswered question can only be endured for so long), particular students tend to monopolise such interchanges, potentially alienating others from the process. Chastened by such experiences, many academics reluctantly settle into a didactic mode of delivery, despite its attendant problems of student passivity and disengagement (Garside, 1996).

Traditional modes of lecture delivery are buttressed by the promise of active student discussion of course material in subsequent small-group sessions. The use of these staff-intensive small-group sessions (seminars or tutorials) varies according to institution, but in general they are much less frequent than the large-cohort lectures.

One time-honoured solution to these problems, particularly in US law schools, is to employ the Socratic method of teaching in lectures, through which all students are expected to attend class prepared for discussion on the topic at issue and particular students are called upon by the lecturer to engage with a series of questions and responses drawing out issues for the remainder of the class (Kerr, 1999, p.118). Under the traditional form of Socratic method, the risk of being chosen to answer questions before the entire cohort, in the knowledge that some students will be chosen to do so, incentivises the entire student body to attend class prepared to engage in debate, advancing lectures beyond the exposition of basic concepts and key facts. The imperative of transforming students into professionals, primed to conduct a legal discussion with a judge in a courtroom, has sustained the use of Socratic method in US postgraduate legal education (Sullivan et al, 2007, p.3). If it is effective, Socratic method should heighten student preparation for class, whilst the question-and-answer discussions hone students' legal reasoning skills and their capacity to engage in academic debate on legal issues. It can, however, rely upon the potential for humiliation to encourage preparation and debate, engaging students in competition with each other and potentially undermining the development of cooperative learning (Marshall, 2005, pp.14-15). As a result Socratic method risks compelling students to approach their education as a process of learning sufficient legal trivia to fend off questions, rather than developing their capacity for active debate and critique (Kerr, 1999, p.125). Socratic method has not gained much traction within the lecture theatres of UK law schools. Much of the

impetus behind the approach was blunted by the UK's separation of the academic study of law at undergraduate level and subsequent professional education. A UK law degree, unlike a US law degree, is not necessarily preparation for a back-and-forth dialogue with a judge across a courtroom. In addition, the fact that law is taught largely as an undergraduate subject in the UK means that such students are younger, less mature, and new to university life in comparison to their US counterparts (Klein, 1991, p.635), meaning that many lecturers view the Socratic method as an inappropriate learning tool in the UK law school context.

CRS provides an opportunity for lecturers looking for an alternative or additional method of engaging students in interactive lectures. Turning Technology, producers of a version of this technology, claim that their CRS system is 'designed to achieve superior levels of student engagement with compelling instruction that leaves a lasting impression in and outside of class' [<https://www.turningtechnologies.com/higher-education>]. Small wireless radio handsets, and latterly smart-phone apps (Law & Devon, 2014) allow students to state their agreement or disagreement with a proposition or to select which multiple-choice option enumerated on the lecture slides they believed to be correct. Each response device is bar-coded and can be registered to an individual or group of students for a period of time (from the duration of a lecture to an entire academic year).

As a discipline, law's 'traditional focus upon analytical problem solving should ... [place it] at the forefront of clicker use and experimentation' (Easton, 2009, section 4). And yet, despite the opportunities opened up by interactive educational technology, efforts to enhance the reflective aspect of law lectures by engaging the student body in discussions upon aspects of law reform and development face on-going difficulties. Catherine Easton has catalogued the factors inhibiting the use of interactive educational technology in law

lectures. She identifies, in particular, fears that CRS use detracts from the time dedicated to delivery of course content (Easton, 2009, section 2.3.1), concerns over control of the classroom during interactive sessions (Easton, 2009, section 2.3.2) and worries over the challenge of adapting to new technology (Easton, 2009, section 2.3.3). To these not-inconsiderable impediments might be added a concern that clickers could replicate some of the shortcomings of Socratic method, in prioritising the recall of facts (for example case names or relevant sections of statute) over the interpretation of material (Auster and MacRone, 1994) and in making the learning environment more competitive. In our action research study, we wished to explore with our students whether the reported advantages of CRS outweighed the perceived negatives.

Our Classroom Response System Project

During the 2011/2012 academic year we integrated TurningPoint CRS into lectures for Public Law and Criminal Law, core modules in Newcastle University's undergraduate law degree taught at Stage 1 and 2 respectively. Both modules had a class size of 150. Multiple Choice Question slides were incorporated into these modules' PowerPoint presentations at the conclusion of each module topic. Once students have selected the option which they believe to be correct using their response handset, the lecturer can display the overall cohort results on screen. By enabling academics to monitor cohort responses in this way, CRS technology allows them to immediately address common misconceptions. At the end of a quiz, the system also ranks handsets by proportion of correct answers and allows the lecturer the option of displaying a leader board of high scoring teams. This facility allows academics to recognise and praise strong performances. Following CRS-enabled lectures

lecturers can save the quiz results and produce detailed reports on question responses, allowing them track individuals or small groups of students who consistently fail to answer questions correctly and direct them towards further support.

For all the studies attributing pedagogical benefits to CRS-enabled lectures (see Denker, 2013; Evans, 2012; Krumsvik, 2012) less research has considered how best to employ this educational technology. In our project we adopted different models of application in our respective lectures. Public Law lectures used an individualised model, by which every student who agreed to take part in the TurningPoint exercises did so through a handset registered to them personally. TurningPoint exercises in Criminal Law lectures, by contrast, were conducted using a group model, by which “Law Firms” of four to six students answered questions as a team, following discussion. Our aim was to assess the relative merits of a group model which supported co-operative learning over a more competitive individual model. In theory, these approaches would not only develop different learning processes, but also generate different learning outcomes. Our research questions were:

- 1) How do students respond to the use of CRS in large-cohort law lectures?
- 2) Does the method by which CRS is employed alter student perceptions of lectures?
- 3) Having been introduced to CRS how regularly would students like it to be used, if at all, in future classes?

Student opinion was assessed through qualitative and quantitative analysis. Towards the end of the academic year questionnaires were distributed to students gauging their impression of the usefulness of TurningPoint handsets as learning aids, at stimulating in-

class discussion, as a feedback mechanism, and asking for their opinion as to the degree to which CRS should remain a feature of teaching on these modules. Across the Criminal Law and Public Law classes, 173 students responded (68 Criminal Law students (48% response rate); 105 Public Law students (70% response rate): these responses were anonymised and the qualitative data analysed using Statistical Package for the Social Sciences (SPSS) software. In order to gain further information, a randomised selection of students were invited to participate in focus groups (Krueger, 2009), one for each cohort. Focus group questions followed the model laid out in the cohort questionnaires. Responses were recorded and transcribed, anonymised and analysed using Nvivo software. Throughout the trial we also met on a regular basis to share our experiences of using CRS, including any technical or practical difficulties we had encountered, to discuss the effectiveness of different types of multiple choice question and to report our impressions of how students appeared to be engaging with CRS technology.

Project Outcome: Ease of Use

The first question we asked was the extent to which the students agreed that the 'TurningPoint device was easy to use'. With only minimal instruction on the use of CRS, 95% of the participant students nonetheless agreed or strongly agreed with the statement (Figure 1). Only one student strongly disagreed, with a further seven disagreeing. All but one of the students who reported difficulty with the technology came from the Public Law cohort, in which each individual student had been issued with a handset:

The 'Turning Point' device was easy to use (n=173)

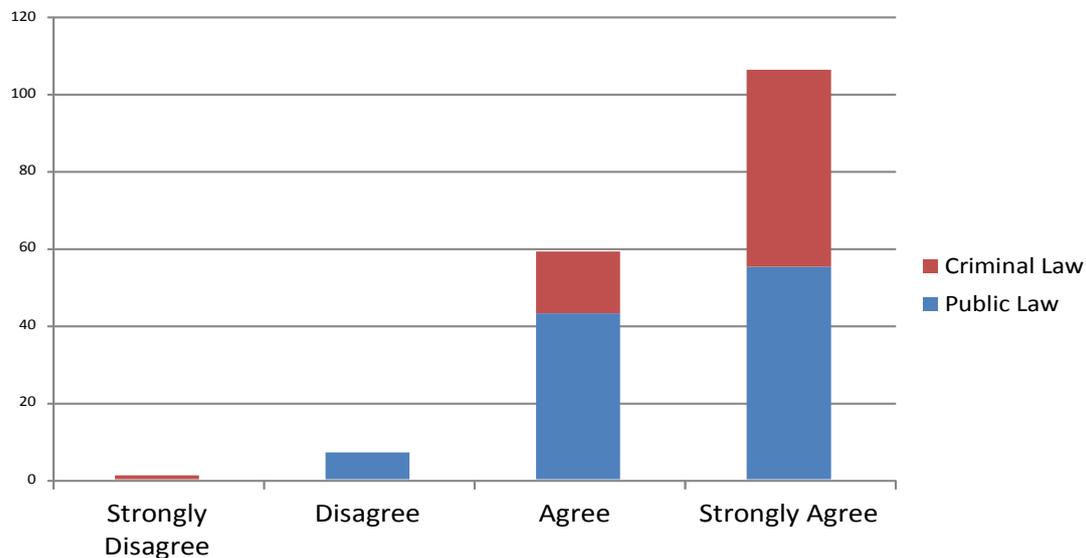


FIGURE 1

There was a consensus from the focus group participants that devices were generally straightforward to use, though some raised the issue of the ease of 'knocking' the device to a different radio frequency, meaning that the response from that handset is not picked up by the receiver. Whilst it is straightforward to reset the device, this non-communication does not become apparent until the final results for the session have been processed. Based on these results we introduced an information slide into any CRS-enabled lecture advising students to set the radio signal to the correct channel. In subsequent years this test allowed students to check whether the battery on a particular handset was spent.

None of the students in either cohort were registered as having any sight or hearing impairments, which could potentially have impacted on their participation in the CRS-enabled session. Nevertheless as lecturers, we made adjustments to our delivery of the sessions in case of any non-registered students. The CRS-enabled devices used had a raised

button in the centre to allow for ease of navigation by touch. Each question and the possible answers were read out aloud as well as being presented visually on the slide. The results of each poll were also read out by the lecturer to the class.

As for the preparation of the sessions, with some basic training TurningPoint was straightforward to use, in terms of both designing the slides and employing the handsets in lectures. Occasionally, the technology would cause the lecture theatre computer to freeze briefly (though not to crash). The main logistical concern was the length of time required to distribute and collect the devices at the beginning and end of class, particularly in Public Law, in which all students had individual handsets. We could not let students keep handsets between classes as they were needed for other CRS-enabled sessions within the Law School. Even if more units were available, the likelihood of them being forgotten when not all lectures featured TurningPoint exercises would have dissuaded us from issuing the devices to students on a long-term basis. Handsets occasionally went missing: six were lost over the course of the academic year from Criminal Law, but none during Public Law sessions, in which handsets were allocated to students by name. Occasionally, and in particular when the CRS session was mid-class, students would forget to return handsets at the end of the lecture but would almost invariably bring them to the next lecture.

At the time of the study we were the only two out of 25 lecturing staff to regularly use CRS within our lectures. However, as the project progressed students discussed the use of CRS amongst themselves and with other staff members. Consequently, a number of colleagues sought information and training on using CRS. Within a year, the number of staff using the technology had increased to half a dozen across five modules.

Project Outcome: Enhancing Engagement

The questionnaires subsequently asked the students to indicate the extent to which they agreed that 'the use of TurningPoint made the lectures more interesting.' Fully 51% of participants strongly agreed, whilst a further 45% agreed with the statement (Figure 2). Only 4% disagreed. This appears to be a strong endorsement of the use of the technology by the students:

The use of 'Turning Point' made the lectures more interesting (n=173)

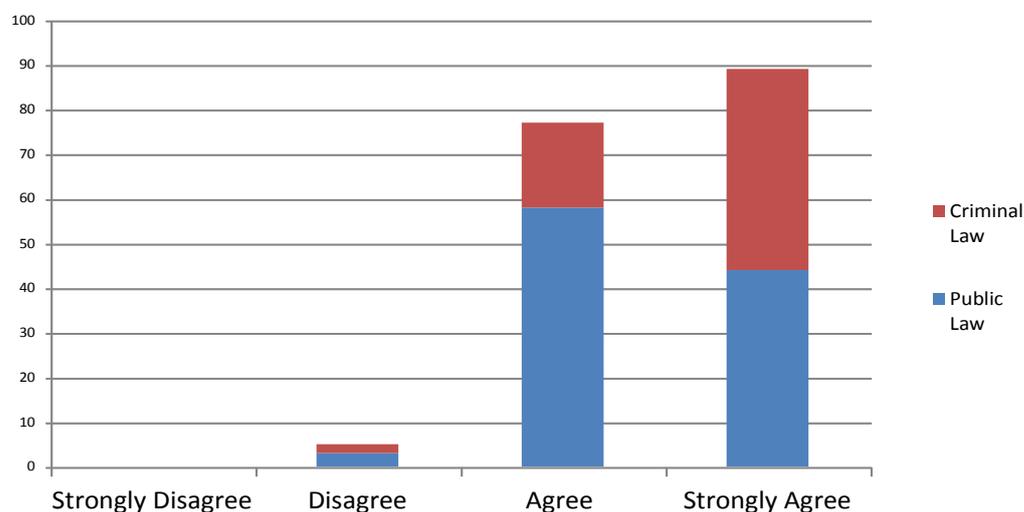


FIGURE 2

The focus groups provided further evidence that students considered that CRS-use made lectures more engaging and that the discussion generated by TurningPoint exercises was relevant to the questions at issue (a concern noted with regard to in-class discussions which are not directly monitored by the lecturer; Biggs, 2002, p.65):

I tend to sit quite far back in the lecture theatre and there's always a danger that some people do sit behind us and just talk throughout the lecture, but as soon as Kevin brought the TurningPoint out everything like that stopped. And everybody was focusing and it was quite nice to actually have a lecture where the people weren't talking and when they were talking they were talking about relevant material for the topic.

Criminal Law Focus Group

I think that something that's a lot more interactive is worth two [traditional] lectures, because you're more likely to remember them and you're more likely to engage in the issues rather than just having them spoken to you, if you will.

Criminal Law Focus Group

One student emphasised the importance she and her friends attached to lectures involving CRS:

I think it makes the lectures more important. A lot of people skip the odd few lectures because they just say oh, I'll get the slides and I'll read the book and I'll do it myself. So it's not so bad. But when you miss a lecture like that, you can't get that back.

Criminal Law Focus Group

Other research studies have also found that the use of CRS in lectures noticeably increases interest and engagement across disciplines (Auras & Bix, 2007; Bates, Howie & Murphy, 2006; Cole & Kosc, 2010; Salemi, 2009). In an era when the availability of social media and the internet on wirelessly enabled devices can distract students in lectures, CRS-enabled sessions serve to focus student attention on the subject matter (Cole and Kosc, 2010, p.397).

Project Outcome: Engaging Co-operative Approaches to Learning

The survey also asked students about the extent to which they agreed that ‘the use of TurningPoint made me more willing to discuss this subject with other students’. In response, 80% either agreed or strongly agreed with the statement, whilst 20% disagreed or strongly disagreed (Figure 3):

The use of ‘Turning Point’ made me more willing to discuss this subject with other students (n=173)

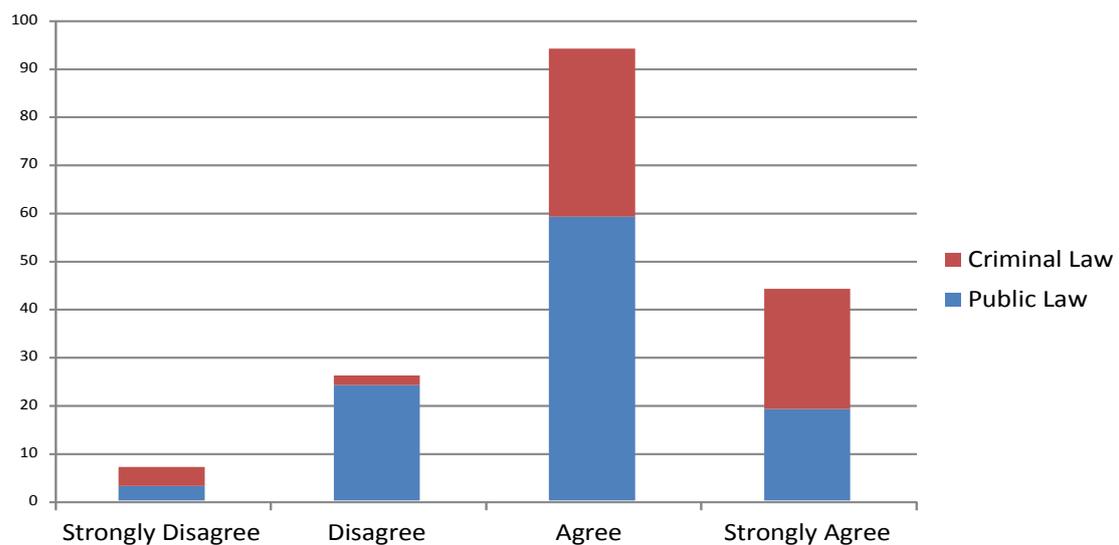


FIGURE 3

The Criminal Law focus group emphasised the value of CRS for generating discussion:

I really enjoyed discussing with all of my friends, because I know I'll remember that in my exams because I remember having the conversation about it. So I'm far more likely to remember that than reading it.

A typical Criminal Law module will contain subjects of controversy and sensitivity such as sexual offences. Some students tend to be wary of expressing their views on such issues, especially in front of a large cohort of peers. Using CRS allows students to feel more comfortable in expressing opinions in lectures, as emphasised in the following statement from the Criminal Law focus group:

I personally am not bothered about putting my hand up, but I know people that are and they feel a little bit unsure about something, maybe they're just uncomfortable with sort of expressing their opinion that boldly, but giving it anonymously is a good way because people don't particularly watch you push the button, you can say what you really think. And especially with some things in criminal law, people do have really controversial opinions that perhaps they don't want to air because they're quite personal to them.

Criminal Law Focus Group

In a criminal law lecture that was examining the issue of intoxication and rape, students were asked using CRS whether they agreed that a woman who becomes intoxicated is at least partially responsible if she was raped. This question has been asked in a number of national and international surveys (see for example Amnesty International, 2005). When the results from the question were displayed, revealing a clear division of opinion, there were audible gasps. There then followed several minutes of class debate in which a significant number of students participating. This outcome is in line with previous studies into the use

of CRS, which have also found that it can be useful in generating in-class discussion amongst students (Auras & Bix, 2007; Campbell & Monk, 2012; Mollborn & Hoekstra, 2010).

Our project, however, indicated a marked divergence between students who had experienced the individual model of CRS, in Public Law, and those who had experienced the group model, in Criminal Law. Most of the substantial minority of students who did not believe that CRS-enabled sessions had made them more willing to discuss the subject with other students were Public Law students. As one concluded:

[I]n the end you're doing a degree for yourself, you're not doing your degree to be better than everyone else. ... And if I would say a negative point to the technology, it would be that it introduced feelings of competition between people which surely isn't what a degree is about.

Public Law Focus Group

Using CRS-enabled sessions to generate a form of individuated norm-referenced formative assessment in Public Law harnessed students' achievement motivation, but with this came the attendant risks of 'killing collaborative learning' (Biggs, 2002, p.62). Whilst many students valued the process of in-class exercises, some disliked the resultant competitive learning environment. The approach adopted in Criminal Law, by grouping students together into teams, placed a stronger emphasis on co-operative drivers to learning than on competitive drivers. This is not to say that the latter were removed from the process; student engagement was encouraged by using scoreboards to display which groups performed the best at the end of each quiz, but scoring highly in the quizzes required

students to work together. This admixture of competitive and cooperative elements seemed to strike a chord at least with some students:

I think with being a law school or whatever, everybody is slightly competitive. So knowing what the topics were in advance and knowing there's a prize or whatever ... I did the revision before having the lecture. Whereas before if it was a revision lecture and it was going through, I'd bring the notes in, but I wouldn't be engaging as much. So that was quite good.

Criminal Law Focus Group

Only the top five performances were identified, meaning that these scoreboards did not operate as a tool for naming-and-shaming individuals or groups which struggled with the questions.

Project Outcome: Enhancing Student Confidence

Students were also invited to express their opinion on the extent to which CRS impacted on their confidence in their knowledge and understanding of the subject. The results of this were mixed (Figure 4). Whereas 80% of students agreed or strongly agreed that 'the use of TurningPoint improved my confidence in the subject', 20% disagreed or strongly disagreed. Again, the proportion of students disagreeing was considerably higher under individual-model CRS (Public Law) than under group-model CRS (Criminal Law):

The use of 'Turning Point' improved my confidence in the subject (n=173)

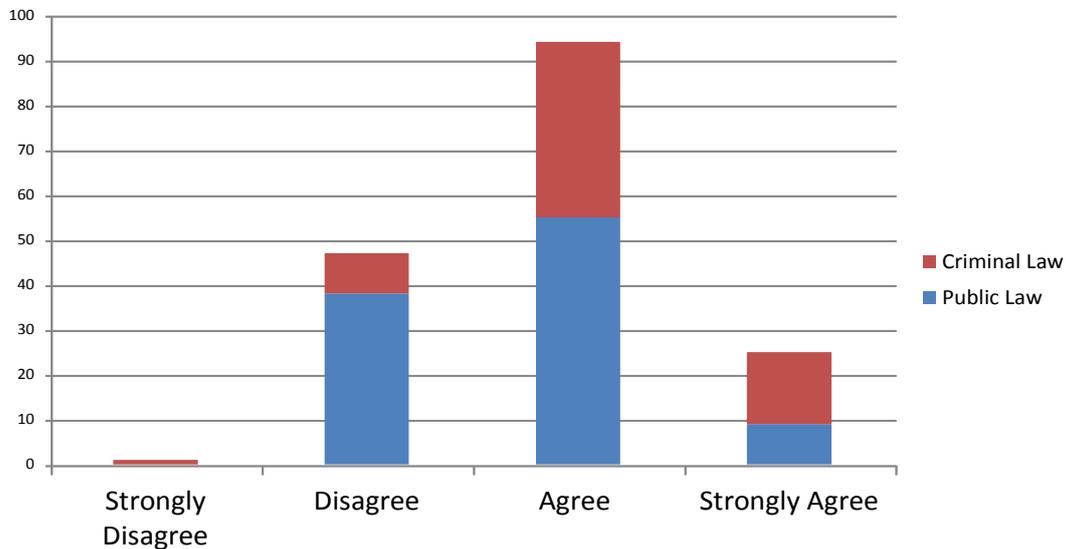


FIGURE 4

When the issue of confidence was explored further in focus groups students explained that the use of TurningPoint sometimes made them identify gaps in their knowledge or understanding:

It helps you to practice your recall of the material, because you only have a limited time to do it, and obviously you have that sense of ... success if you do well.

Public Law Focus Group

If I got a bad score then it made me determined that it was time to try and get a good one and try and get in the top five [leader board]. So I thought it was good.

Public Law Focus Group

The practice of both lecturers during the TurningPoint quizzes was to provide an explanation as to why a particular answer was correct. This allowed students who had selected the incorrect answer to understand where they had gone wrong. The following was a free text comment from the survey questionnaire:

The TurningPoint tests are a useful way to show the key points I haven't understood or have mixed up and I find the discussion of the answers afterwards is really helpful.

Free text Comment in Survey Questionnaire

In other words most students agreed that CRS-enabled sessions provide an opportunity to receive formative feedback on knowledge and understanding of core concepts whilst a topic is still being taught, generating a 'teachable moment' at which the lecturer can intervene to correct misconceptions (Easton, 2009, section 2.2.3). A number of students, however, noted that due to the excitement of the quiz, students would often be particularly talkative at the moment answers were revealed, which meant that hearing the explanation might sometimes be difficult:

It would be more beneficial if people were quiet when lecturer is explaining the answers because it is hard to concentrate!

Free Text Comment in Questionnaire

In subsequent years this issue was addressed by our allowing more time for the commotion generated by responses to settle before we delivered explanations to the class.

Project Outcome: Level of CRS Use

Whilst the general response to the use of TurningPoint in lectures was positive there was less of a consensus among the two student cohorts as to the limits on the use of CRS-enabled sessions. Students were asked if they would like to see TurningPoint used in the regular seminars of no more than 12 students used at Newcastle Law School which require advanced preparation of responses to pre-set questions. The two cohorts were more divided in response to this question, with 59% of those completing the questionnaires strongly agreeing or agreeing that they would 'like to see TurningPoint used in seminars', whereas 41% disagreed or strongly disagreed.

Data from the focus groups as well as free text comments suggested that this division in opinion related to whether students perceived that CRS was necessary to generate discussion, or whether discussion arose naturally within the seminar format:

TurningPoint would be excellent for sparking discussion in seminars. I think this would be a very good idea.

Free text Comment for Survey Questionnaire

In my view the entire point, as far as I'm concerned, of a seminar, is to facilitate discussion amongst a small group. And I definitely think if you were to implement TurningPoint ... it would detract from what I feel is the crux of seminar teaching.

Criminal Law Focus Group

Although almost all students enjoyed the use of CRS to assess class opinion on an issue or to conduct in-class tests at the conclusion of a topic, when asked whether they would like to see the technology used in every lecture, 65% of respondents to the questionnaires said that they would not, evidencing concerns over ‘clicker fatigue’ (Easton, 2009, section 3.3). A follow-up statement asked students whether or not they agreed that if ‘TurningPoint was used in all classes I would get bored of it’. Opinion was divided, with 48% of students agreeing or strongly agreeing that they would get bored and 52% disagreeing or strongly disagreeing. The focus groups and some of the free-text comments from the questionnaire survey confirmed that, at least for some students, the provision of some CRS-enabled sessions enhanced a mixture of lectures and seminars, but did not substitute for either:

Little bit of a novelty isn't it, having it every so often breaks things up a bit, rather than if it was every lecture.

Public Law Focus Group

It would get tedious to use it in every lecture and every module.

Free Text Comment from Survey Questionnaire

Such comments indicate a risk that the overuse of CRS would diminish its capacity to stimulate learning (Heaslip, et al., 2014, 22). From our experience of the trial, if the quiz lasted more than 15 minutes in total (six multiple choice questions, allowing time for discussion and feeding back on response patterns), students would begin to disengage.

Project Outcome: Enhanced Oversight of Student Performance

The model of CRS-enabled sessions adopted in Public Law allowed the module team to identify individual students with weaker quiz performances, with the idea that this information could be used in future years allow academics to target support to these students ahead of the end-of-module exam. Figure 5 below compares student performance in the TurningPoint quizzes on the X axis (on a scale of 0-36, with six questions in six quizzes) with exam performance (out of 100) on the Y axis:

Public Law TurningPoint/Exam Mark Comparative Analysis (n = 135)

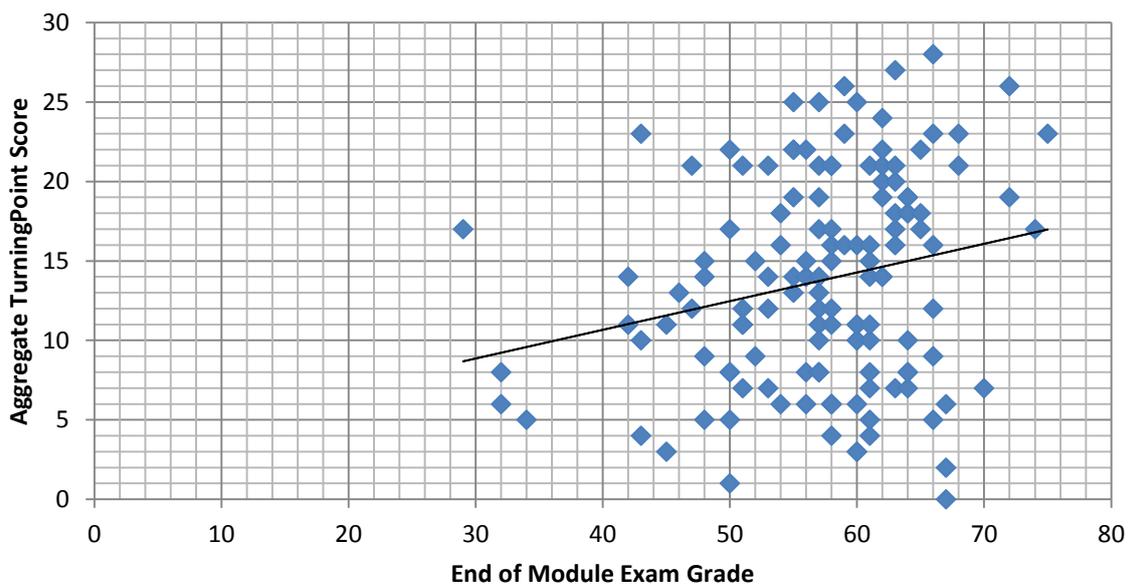


FIGURE 5

This comparison indicates a weak correlation between TurningPoint Quiz performance and end-of-module exam performance. That this correlation is not stronger is in many ways unsurprising, as students were able to rely upon the TurningPoint exercises to correct misconceptions and to direct their own studies in advance of the exam. In light of the

student feedback we received on this project, however, we concluded that the drawbacks inherent in the individual model outweighed the potential benefits of academic oversight of individual student performance.

Conclusions

No one teaching method will suffice to engage all students, all of the time. The wide range of approaches to learning in large cohorts require lecturers to utilise a variety of methods to support as many students as possible (Boyle, et al., 2009; De Groof and McKee, 2006; Haar and Hall 2002). That axiom notwithstanding, the potential impacts upon student learning of the systematic application of CRS technology in law lectures are threefold. First, in line with previous studies, we found that by adding 'variety in the lecture presentation' (Easton, 2009, 2.1.4) use of CRS can make lectures more engaging for a broad spectrum of the student body, and thereby increase student attentiveness and attendance. Second, as a formative assessment technique, lecturers will be able to assess student answers over the course of several lectures and identify those students who regularly struggle with key concepts, enabling the lecturer to investigate the cause of these misconceptions and, as necessary, direct the students towards additional support. An individual-response model of CRS, in particular, allows lecturers to assess student attendance and potentially identify students who may be struggling with a module. Third, if a team-response model of CRS is employed, the lecturer can harness co-operative drivers for learning, encouraging critical engagement with legal issues by stimulating collaborative discussion of foundational concepts and problem solving with their peers. Although CRS technology is not a panacea for all the problems of the large-cohort lecture as a learning environment (and we have

outlined some the limitations we encountered in this chapter) we would nonetheless encourage all academics who want to break free from a didactic model of delivery in their criminal law lectures to experiment with the use of this technology.

Bibliography

Amnesty International (2005). 'UK: New poll finds a third of people believe women who flirt partially responsible for being raped' Available at: <http://www.amnesty.org.uk/press-releases/uk-new-poll-finds-third-people-believe-women-who-flirt-partially-responsible-being>

Auras, R., & Bix, L. (2007). 'Wake up! The Effectiveness of a Student Response System in Large Packaging Classes'. Packaging Technology and Science, 20, 183-195.

Auster, C.J., & MacRone, M. (1994). 'The classroom as a Negotiated Social Setting: An Empirical Study of the Effects of Faculty Members' Behavior on Students' Participation'. Teaching Sociology 22: 289-300.

Baer, W. (1997). 'Teaching strategies and accommodations for students with learning disabilities'. In Hodge, B.M. & Preston-Sabin, J., eds., *Accommodations or just good teaching?* (pp.126-131). Praeger.

Bates, S.P., et al. (2006). 'The use of Electronic Voting Systems in Large Group Lectures: Challenges and Opportunities'. New Directions, 1-8.

Biggs, J. (2002). *Teaching for Quality Learning at University*. Open UP.

Beard, R. (1970). *Teaching and Learning in Higher Education*. Penguin.

Black, L. W. (2005) 'Dialogue in the Lecture Hall: Teacher–Student Communication and Students' Perceptions of Their Learning' Qualitative Research Reports in Communication 6(1): 31-40.

Boyle, R., et al. (2009). 'Law Students are Different from the General Population: Empirical Findings Regarding Learning Styles'. Perspectives: Teaching Legal Research and Writing 17: 153.

Campbell, C., & Monk, S. (2012). 'How do we get Students Talking in First Year Courses? Engaging Students using Learner Response Systems'. Society for Information Technology & Teacher Education International Conference, 3541-3546.

Cole, S., & Kosci, G. (2010). 'Quit Surfing and Start "Clicking": One Professor's Effort to Combat the Problems of Teaching the US Survey in a Large Lecture Hall'. The History Teacher, 397-410.

De Geest, G., & Dari-Mattiacci, G (2013). 'The Rise of Carrots and the Decline of Sticks'. The University of Chicago Law Review 80: 341-393.

De Groff, E.A. and McKee, K.A. (2006). 'Learning Like Lawyers: Addressing the Differences in Law Student Learning Styles'. Brigham Young University Education and Law Journal: 499.

Denker, K.J. (2013). 'Student Response Systems and Facilitating the Large Lecture Basic Communication Course: Assessing Engagement and Learning'. Communication Teacher 27: 50-69.

Easton, C. (2009). 'An examination of clicker technology use in legal education'. Journal of Information, Law and Technology 3.

- (2012) 'Employing a Classroom Response System to Teach Law: A Case Study'. European Journal of Law and Technology 3.

Evans, H.K. (2012). Making Politics “Click”: The Costs and Benefits of Using Clickers in an Introductory Political Science Course. Journal of Political Science Education 8: 85-93.

Garside, C. (1996). ‘Look Who’s Talking: A Comparison of Lecture and Group Discussion Teaching Strategies in developing Critical Thinking Skills’. Communication Education 45: 212-227.

Heaslip, G., et al. (2014). ‘Student Response Systems and Learner Engagement in Large Classes’. Active Learning in Higher Education 15: 11-24.

Kerr, O. (1999). ‘The Decline of the Socratic Method at Harvard’. Nebraska Law Review 78: 113.

Klein, S.R. (1991). ‘Legal Education in the United States and England: A Comparative Analysis’ Loyola LA International & Comparative Law Review 13: 601-641.

Krueger, R.A. (2009). *Focus Groups: A Practical Guide for Applied Research*. Sage.

Krumsvik, R. (2012). ‘Feedback Clickers in Plenary Lectures: A New Tool for Formative Assessment?’. In Rowan, L. and Bigum, C. eds., *Transformative Approaches to New Technologies and Student Diversity in Futures Oriented Classrooms* (191-216). Springer.

Law, R., and J. Devon (2014). ‘The use of Smartphone Technologies by Students in the Education Environment’. EDULEARN14 Proceedings: 3948-3957.

Marshall, D.G. (2005). ‘Socratic Method and the Irreducible Core of Legal Education’. Minnesota Law Review 90: 1-17.

Mollborn, S., & Hoekstra, A. (2010). “‘A Meeting of Minds’”: Using Clickers for Critical Thinking and Discussion in Large Sociology Classes’. Teaching Sociology 38: 18-27.

Salemi, M.K. (2009). ‘Clickenomics: Using a Classroom Response System to Increase Student Engagement in a Large-Enrolment Principles of Economics Course’. Journal of Economic Education 40: 385-404.

Simpson, V. and Oliver, M. (2007). 'Electronic Voting Systems for Lectures Then and Now: A Comparison of Research and Practice. Australasian Journal of Educational Technology 23: 187-208.

Spencer, B.J. (19 Dec 2013). 'While the US Law School Bubble Bursts, the UK Law School Bubble Grows'. Huffington Post. Available at: http://www.huffingtonpost.co.uk/brian-john-spencer/uk-law-school_b_4473341.html.

Susskind, J.E. (2005) 'PowerPoint's power in the classroom: Enhancing students' self-efficacy and attitudes' Computers and Education 45(2): 203–215

Terry, N., et al. (2015). 'The Impact Of Lecture Capture On Student Performance In Business Courses' Journal of College Teaching & Learning 12(1): 65-74.

Zuber-Skerritt, O. (1992). *Action Research in Higher Education: Examples and Reflections* Kogan Page.