

Constraints on Innovative Teaching in British Universities: An American Perspective

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Effective teaching is often difficult to achieve because institutional frameworks and inertia – unique to the British educational system – inhibit teachers from being innovative. These challenges to more innovative teaching are the relatively short length of time to a degree, and the heavy institutional oversight of degree programs and individual courses. Also, the tradition of lack of regular feedback and failures in the supervision and marking of undergraduate dissertations also lead to a less-than-ideal educational experience. Fortunately, some of these challenges can be overcome and provide a better learning experience for students.

British universities are in the midst of fundamental changes that are forcing an otherwise rigid system to evolve quite rapidly. I began reflecting on my role as an educator in this new system amidst these changes, as well as the differences between American and British universities. I have come to understand that constraints imposed by the British educational system inhibit instructors from being more innovative. These constraints are not necessarily unique to the UK, but they appear to be more strongly fostered here and do more to limit innovation than elsewhere.

These constraints fall within two categories: institutional constraints and individual instructor constraints. Institutional constraints are those that have been imposed by the British university system and the organizations that fund and oversee the system. These constraints can be the most challenging to overcome, but some are beginning to be recognized as limiting innovation in education. In contrast, individual instructor constraints depend on how instructors conduct their teaching. Are they providing the most effective teaching? What techniques are they using? What is their educational philosophy? These constraints are easier to overcome but necessarily affect a smaller number of students. This article explores these two types of constraints on teaching and suggests ways to overcome them to improve teaching in the UK.

Two caveats should be stated up front. First, the issue of the Teaching Excellence Framework or TEF (HEFCE, 2017) as a way of recognizing and rewarding excellent teaching is not discussed here. TEF is a UK government assessment that purports to evaluate the quality of undergraduate teaching. Universities are responding to the criteria that TEF incorporates and to its outcomes, but these issues will only be discussed indirectly. Second, this article may not generalize to all universities, all programs, and all instructors. Nevertheless, I believe there to be some underlying generalities that can help academics be more innovative instructors.

For context, I was born and educated at three different universities in the US. I taught part-time at a community college and two other universities. In 2006, I moved to Finland and taught there for three years. Most recently, I have been teaching in the UK since 2010. My perspective in this article is largely from science subjects and from

my experience, but, where available and relevant, I have drawn linkages to other disciplines.

Institutional Constraints on Innovative Teaching

British universities have been in existence for almost a thousand years. The universities have withstood many pressures as the times have changed and new educational methods have become fashionable (Anderson, 2006). However, such a long history can also stifle innovation as change can be more difficult for older institutions and its academics (Willmott, 1995). Moreover, the rapid pace of change means that students will face challenges that they will not have seen in university. Students will need to be better prepared for lifelong learning than their instructors were when they were in university. As such, these changes in the needs of students requires innovative teaching. This section discusses two of the biggest constraints to innovative teaching: length of time to get a degree and heavy oversight of educational programs.

Length of Time to Obtain a Degree

One of the biggest differences between American and British university education is the length of time spent getting a degree. In the US, most BSc programs are four years long, and MSc programs are treated as graduate degrees and are two years or more (combined BSc–MSc degree programs may be as short as four or five years). In the UK, however, most BSc programs are three years long¹; MSc programs are treated as undergraduate degrees and tend to be an additional year. There are obvious benefits to spending less time at university, such as reducing the burden on students from tuition and accommodation costs. The shorter time to graduation also attracts fee-paying international students to British universities (UCAS, 2014). Even the time in lectures is shorter in the UK. The typical class at an American university has three hours of lecture a week over a 15-week semester², whereas the typical class in the UK has two hours of lecture a week over a 12-week semester.

In part, these differences may be explained by the more specific training that British school students receive before university than typical American school students. British students tend to specialize earlier, so they take fewer courses outside their general science, engineering, or humanities pathways. For example, it is common that British students arriving to the university for a science degree may not have written an essay for several years, not having taken literature or history courses, as would be expected at a typical American high school. Even at British universities, students often take far fewer elective courses outside their major than at a comparable American university degree program. This difference may further explain the shorter time to a degree at British universities.

¹ Undergraduate honors programs in Scotland may be four years long.

² Some universities are on the quarter system: three 10-week quarters within one academic year.

With such a short time to obtain a degree, however, programs necessarily are more rigid, offering fewer electives and fewer courses in total than in the US. UK students take more of their courses within a single academic program, rarely exploring courses outside their intended degree. For example, science students needing differential equations or statistics may be taught these courses within their own department rather than by an instructor within the mathematics department. Yet, these science students may not even be exposed to arts, humanities, or even social sciences during their degree program. Even a liberal arts degree, where a range of courses from different disciplines are integrated into a coherent degree program, is a relatively new concept among some universities in the UK (Turner, 2016).

Two institutional issues prevent more classes being taught outside the department. First, the funding structure of most universities means that courses outside the department would involve load transfer, and schools are reluctant to give away precious resources. In contrast, American universities are more likely to take a

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more holistic view, where funds coming to departments are not so strictly determined by enrollment within individual courses. Second, the speedy three years means that focus must be on the core courses for the degree rather than on coursework from outside the department, even if it is relevant or complementary to the student's

degree. Such issues keep students from seeing a broader perspective around the university and limit the potential for interdisciplinarity later in their careers (Hurley & Harnisch, 2012; Marcy, 2010). Furthermore, the short time to a BSc degree and the lack of a requirement of an MSc before entering a PhD program means that UK students often arrive to a PhD program with fewer courses and with less breadth of knowledge.

More relevant to this article, however, shorter degree programs encourage less experimentation, which leads to less innovation. Core courses dominate, and opportunities to try new ways of teaching or different types of courses outside traditional curricula can be easily sidelined or not even considered because of the lack of time in the degree program. Without the flexibility of a large number of optional modules, the opportunity to innovate within an existing course or develop new one-time-only courses based on current events or temporary academic visitors is limited. This isn't to say that core modules can't be taught in an innovative manner, but that the flexibility, variety, and opportunities for innovation are limited with fewer optional modules.

Excessive Oversight

The major constraint limiting innovation on the institutional level – and perhaps the one that individual academics can influence the most – is the level of oversight that most programs maintain over individual taught courses. Such top-heavy management is common, whether it comes from departments with overbearing teaching committees, bureaucratic inertia to changing degree programs to accommodate disciplinary advances, imposition of university or UK-wide initiatives to force eLearning approaches regardless of whether it is the right solution for specific

courses, and external examiners (*The Guardian*, 2018; Jackson, 1997). Although some US educational institutions may have excessive oversight on an institutional level, there is little in the way to compare to the large and imposing UK sector-wide initiatives.

External examiners can be a particularly effective way to enforce discipline-specific homogeneity and limit the self-governance of individual departments to their own vision of excellence. The amount of time and money spent on catering to an academic external to the program to ensure nationwide homogeneity in “academic standards” could be used to advance the program from within. Indeed, evidence suggests that external examination has done little to improve student experience (Harvey & Newton, 2004). In contrast, such annual external examination is not common in the US, although programs may be examined by an external board every five years or so, perhaps as part of a re-accreditation process or introspection by the university, external professional body, or the program itself. Unlike in the UK, US professors, mostly uninhibited with oversight, have more time to focus on delivering quality education.

Let me state that I am not against evaluation of individual teaching or programs, but kowtowing to external forces can be harmful to innovation. Innovation is most effective when individuals are given the freedom to experiment with their classes. Those individuals then share successes through publications and presentations, developing greater visibility and uptake through the academic community. Too much top-down management of a program, as can happen with external examination, can kill this innovative spirit. Despite the importance of this bottom-up innovation, top-down management can have a place. It may be necessary to implement policies to facilitate innovations within a more rigid framework. Consequently, both bottom-up and top-down approaches must often be considered in order to implement and realize change.

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Instructor Constraints on Innovative Teaching

Although institutional constraints can be formidable, constraints resulting from individual instructors are more easily overcome. It is often as simple as finding successful innovations implemented by others and giving them a try. An open mind and a desire to improve one’s teaching are often all that is necessary. Nevertheless, the rich traditions of British universities may not encourage individuals to deliver the best education. Instructors trapped in the ‘that’s how I was taught’ mode can be reluctant to change. Moreover, rapid changes in the British educational system over a short time (increasing enrollments and increasing tuition fees) require more rapid and flexible strategies to adapt to these changes (Glass, McKillop, & Hyndman, 1995; Greenaway & Haynes, 2003). Two constraints facing UK instructors are discussed below: lack of regular feedback and the failures in the supervision and marking of undergraduate research dissertations.

Lack of Regular Feedback

Two important differences in philosophy exist between American and British universities. In my experience, students at American universities have more homework assignments, and the structure and requirements of the class are more clear, whereas students at British universities are expected to do more independent study, perform fewer assignments, and take a final exam that is a large fraction, if not 100%, of the final mark. Although the British system encourages more independent thinkers, it can lead to feelings of helplessness and isolation in some students (Boşcor, 2016). Regular assessment (including formative assessment³) throughout the semester is more effective at keeping students on top of the course material, by giving them smaller chunks of material to study (Leeming, 2002). Periodically testing students also helps instructors more regularly evaluate whether students are learning or not during the semester (Black & Wiliam, 2003; Sargent & Curcio, 2012). Although a single final exam is a mechanism for trying to synthesize the whole semester, it can lead to student stress and cramming, situations that are not conducive to good learning (Haberyan, 2003; Kling, McCorkle, Miller, & Reardon, 2005). By the time of the final exam, material that was never learned properly in the early weeks of the course may result in devastating consequences for the student. This excessive emphasis on final exams runs counter to effective learning.

One of the most basic ways to learn is to do something, to receive feedback, then to try again (Dyrud, 1994). Feedback is an essential requirement of higher education (Evans, 2013), yet the British educational system generally does not cater to this process effectively (Tee, 2016). Survey questions pertaining to feedback are among the lowest ranked results by full-time students on the National Student Survey (HEFCE, 2016) year upon year (questions 7–9 scoring 68–72), despite otherwise high overall satisfaction scores (question 22 scoring 85). These results are evidence that British universities are lacking in this regard. Within different programs and universities across the UK, students fail to receive feedback on their work. This failure leads to three problems.

1. British students often do not get to keep returned marked-up assignments and exams. If the student is not receiving the returned assignment, the student cannot study carefully what was marked wrong and improve.
2. If students do not get to keep their exams, then there is little incentive for the academic to carefully annotate their comments – or even justify their grades.
3. British students often do not get to even *see* graded exams. What if this material is prerequisite for the next semester's courses? How do they know what they need to relearn for next semester?

Thus, wherever possible, effective feedback on graded assignments that students can retain helps students learn from their mistakes, whether these students are British or American.

³ The history of formative assessment in the UK educational system is described by Black and Wiliam (2003).

Failures in the Supervision and Marking of the Research Dissertation

Another idea where most UK undergraduate degree programs are superior to those in the US is the importance placed on a final-year research projects, known in the UK as dissertations. Specifically, undergraduate research dissertations are more common in the UK than in the US. Given the large body of work supporting the importance of research to education (the reviews of Jenkins, Healey, & Zetter, 2007, Healey & Jenkins, 2009), British degree programs explicitly incorporate the potential to get students involved in cutting-edge research and to develop critical thinking skills (Healey, Lannin, Stibbe, & Derounian, 2013). At first glance, dissertations would appear to be a positive for UK institutions. However, the UK fails its students by often providing limited supervision and feedback, or this staff–student relationship may not even be spelled out explicitly (Derounian, 2011; *The Guardian*, 2018). My experience suggests that students who engage with supervisors generally perform better than students who do not engage with their supervisors (whether it is the student’s or the supervisor’s fault).

Sadly, this lack of supervision of student research is a result of three things.

1. Instructors spend too little time with their undergraduate research students because they themselves have too little time. The UK has the fourth highest number of students per academic staff (25) and the highest number of graduates per staff (7) within the European Union, United States, and Japan (St Aubyn, Pina, Garcia, & Pais, 2009, pp. 23–24), so UK academics are overworked compared to their colleagues. Some programs in the US incorporating dissertations only assign them to the highest-achieving students. Whether it is acceptable to disallow lower-achieving students from participating in research is arguable, but at least students who do attempt dissertations in the US are more likely to receive better supervision.
2. In my experience, UK undergraduates are expected to demonstrate their abilities independent of their advisor. Thus, some instructors argue that providing feedback during student projects leads to the instructor marking his or her own work, if that feedback is too detailed and specific. This approach may have worked in the days when fewer, more elite students went to university, but it is clearly inadequate now. Moreover, not helping the students does not prepare them for real life where collaboration, feedback, and teamwork are encouraged and necessary.
3. I am aware that some departments justify limiting supervisors’ roles because of the variability in supervision that students receive. If a supervisor is aloof and unavailable, students who do poorly may complain to the department that students who received closer supervision were unfairly advantaged, particularly in the case of programs where students are assigned to specific supervisors in order to fairly balance workloads. So, rather than discipline inadequate supervisors and raise quality, departments acquiesce to the lowest level – no supervision for anyone (*The Guardian*, 2018).

This lack of feedback becomes a farce when undergraduate students doing

their dissertation – their first major independent project on this scale – are prohibited by the department from interacting with their supervisors! Universities don't treat PhD students like this; why do we treat our undergraduates like this, students who need *even more* supervision on their research?

Finally, after completing their dissertation and receiving a mark, students often do not ask to see their feedback and how it was marked. Why are they conditioned not to see their graded performance and inquire how they could improve?

One potential argument that I have heard against providing feedback is that if all students were to receive detailed feedback, then all students would submit first-class dissertations. (Ah, if it were only so simple!) In practice, however, even with detailed level of comments on drafts of essays, some are still unable to bring it to perfection. Students either are incapable of making the revisions because they do not understand what is being asked of them or because they do not want to invest the time required to write properly. So, even with proper marking, my experience suggests that the mean score may be boosted by 10 points (out of 100) across the cohort, but not much more. Individual students may achieve 20–30 points higher (and these clearly benefit from the feedback), but a surprising large number get less than 10 points improvement. I think most are not working hard enough or do not understand what quality editing takes, despite exercises intended to demonstrate just this point. Therefore, this argument against giving feedback is not supported.

Improving British University Education

Many of the constraints discussed in this article have resulted because of the increase in the number of students going to university in the UK. As an illustration of the rapid change over a short time, 15% of the cohort of UK leavers attended university in 1963 (Holmwood, 2014) versus 49% in 2013 (BBC, 2013). In contrast, 45% of US high-school graduates in 1959 attended colleges and universities versus 70% in 2009 (Bureau of Labor Statistics, 2010). The lower percentage of students attending university in the UK and the shorter degree programs mean that drop-out rates are much lower in the UK (40% of all US students who begin a bachelor's degree will drop out before graduation; that number is less than 1% in the UK; Morshed, 2016). Oversight of programs in the UK may have worked better when there were fewer universities, fewer programs, and fewer students, but the system is cracking under its own weight now. Likewise, expecting instructors to find the time to deliver extensive feedback, supervise undergraduate dissertations, and teach all their courses while the size of the cohort grows leads to more stress on academics and less time to innovate.

Moreover, the push for a neoliberal university economy (Kelly, Fair, & Evans, 2017) is being hampered by too much oversight. If the UK wishes to go to such a market-driven university system, then they should go full on, and stop regulating and ranking universities. Such rankings tend to have their own problems anyway (Lim, 2018; Royal Statistical Society, 2019). Let each university develop its own individuality and stop trying to force them all into the same mold through an emphasis on research and teaching metrics. Forcing all universities to emphasize the same things inhibits innovation and limits diversity. In contrast, the market competition among US universities has largely worked, providing value for money to students, regardless of

ability (Dill, 2007, p. 57).

UK academics do not have to be complacent about their role in the education of their students by delivering the same type and quality of courses that they themselves received in their own education. Movements to bring more innovative teaching approaches into courses have awoken many individuals that lectures and semester-end exams are not the most effective method for student learning. Students learn best by doing, through a mix of assessments, effective feedback on how to improve, and close supervision. Continuous learning through formative assessments – represented by assigned homeworks that are marked with feedback and returned – helps students learn better than cramming for an end-of-semester final exam. Regardless of what academics think of “the student as customer”, student satisfaction at universities is being quantified, leading universities to become more focused on the student. This shift in emphasis means that educators need to become more customer oriented, too.

The following represent the key points from this article.

1. Short degree programs limit what courses students can take outside their core curriculum.
2. Oversight needs to be reduced, such as the external evaluator that is expensive in terms of both time and money and inhibits innovation in individual courses.
3. Academics should be given more individual control over their own courses, which fosters innovation.
4. Thorough feedback and a revision cycle on graded assignments help students learn from their mistakes.
5. Students should be allowed to retain marked assignments, dissertations, and exams.

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