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Using blended learning to facilitate large room seminar provision in the era of TEF: reflections from a year two cultural geography module

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Using blended learning to facilitate large room seminar provision in the era of TEF: reflections from a year two cultural geography module.

Abstract

The introduction of the Teaching Excellence Framework (TEF) in 2016 has placed the practice and quality of teaching centre of the UK university agenda, with concerns around contact, delivery, research/teaching balance and facility support framing debates within institutions. Situating the implementation of blended learning on a year 2 cultural geography in the broader context of these discussions, this paper explores some of the challenges and opportunities this approach has in addressing some of these broader concerns, whilst improving student engagement and performance.

TEF, Blended Learning, Cultural Geography, Research Intensive Teaching

Introduction

In 2016 the UK Government introduced the Teaching Excellence Framework, to address the perceived disparities between Research Intensive universities and more teaching focused institutions. This aims to capture student experience of learning following the introduction of increased fees in 2012, to promote teaching excellence across the sector and to place teaching on an equal footing with research (Hubble 2017). As the landscape of the neo-liberal university increasingly seeks to hold teaching and learning to greater account, and a context of increased corporate managerialism and planning enters institutions to monitor national and local initiatives (Gibbs et al 2008; Brew and Manatai 2013; Walkington et al 2017), academic departments need to create innovative ways to deliver high quality, research-focused, learning and teaching. As academics try to meet these challenges, along with pressures on institutional space and resources, new ways of placing the educational benefits to the student need to be sought (Brew 2003; Malcom 2013). Situating teaching in the context of the changing internal and external pressures faced by academics, this paper explores the role that blended learning offers in overcoming a number of challenges faced in delivering an innovative curriculum.

Over the last couple of decades there has been much debate covering the moves from lecturer-focused strategies for research knowledge delivery to the development of strategies to foster more interactive forms of research and enquiry that place the student at the centre of the learning experience(for a good overview see Brew and Manatai 2013; Wood and Su 2017). As universities aim to address the aspirations of the TEF and other excellence indicators such as the National Student Survey, there is an increased pressure on staff to increase student contact hours, whilst balancing other pressures around research performance and increasing student numbers. This often comes at a time when there is a lag in institutional investment in teaching facilities and learning support technology.

The use of digital learning environments over the past 20 years has often been viewed as a panacea to engage students with a more proactive style of learning, with the ability to record, store and replay lectures, linked with online materials and assessments allowing a wider breadth of access and

a flexibility of interaction. Blended lectures have become an increasingly popular mechanism for adding 'value' to the student experience, by providing a learning mechanism and context that encourages deep learning strategies, and fostering small-group discussion. One aspect that is often absent in discussions is the potential to address underlying institutional constraints. In the current UK Higher Education landscape, with students paying high fees, increased attention is being placed on the support and provision students receive as educational consumers. However, institutions and staff alike need to meet these aspirations in the face of a disjuncture in capital investment in teaching space and educational technology. Taking the case study of a second-year Cultural Geography module, this paper explores the ways in which blended delivery offers opportunities and challenges - for both teaching staff and students alike - in addressing the problems timetabling restrictions and spatial constraints create in the face of demands for increased contact in the modern neo-liberal fee-paying university sector in the United Kingdom. It then opens this out to explore the impact this has on student engagement and performance (Healy 2005; Turner et al 2008; Cuthbert et al 2012; Spronken-Smith et al 2014)

Improving student engagement with a subject is a familiar problem for lecturing staff, particularly when teaching a range of theoretical and conceptual ideas, which may at times appear disconnected from everyday experience. In a perfect world, students would act as independently motivated and engaged individuals, critically reflecting on, and applying a range of theoretical ideas and concepts themselves. However, experience has shown that students often need a range of support mechanisms to develop a deeper understanding of ideas, and provide confidence in their application. This paper reflects upon the experience of introducing a 'blended lecture' structure to the teaching of Cultural Geographies to a cohort of year 2 students at a UK university as a response to timetable and room-booking constraints. It outlines the methods of delivery and evaluates how this encourages deeper learning amongst students, whilst creating a feedback loop that allows for guided discussion and in-class debate. It will then evaluate the impact on student engagement and the influence on assessment outcomes. Finally, the paper reflects on the impacts of the changes in relation to staff teaching strategies, and how Blended Learning fits with calls for an increase in research intensive teaching.

Blended learning has become a focus of much academic attention, as educational practitioners have explored new ways of engaging students and improving the quality of student performance (ref in here). By combining traditional methods of delivery, such as face-to-face instruction with support

from technological innovations - ranging from podcasts, through interactive online tests to online lectures and project work, new ways of facilitating student engagement, and challenging different pedagogical goals have been created. Often a mix of classroom work and self-guided study these approaches have been regarded as a way of fostering a culture of independent critical enquiry and peer-assisted learning amongst students (Hinterberger et al 2004; Moore and Gilmartin 2010). As new technology has developed over the past two decades, and universities have invested in interactive electronic learning environments, technology-mediated learning support at a number of levels has become a norm for most courses.

Much has been written in recent years about the impact that blended learning has had on student performance, highlighting the benefits that more flexible approaches to delivery have on student satisfaction, and a perceived improvement in feedback (Collopy and Arnold 2009; Mitchell and Forer 2010; Owston et al 2006; Owston et al 2013). However, one issue that needs further investigation, and is often underplayed in the literature, is the way in which blended approaches to learning can facilitate ways of overcoming institutional constraints caused by increased student numbers, such as congested timetabling and a desire to reduce repeat teaching, something alluded to recently by Martin et al (2017) in the context of teaching in Australia. Further, although attention has been paid to concerns over the investment in a robust IT infrastructure (Moskal et al 2013), the disjuncture between capital investment and the time needed to construct modern, flexible learning spaces, allied to wider sectoral demands to introduce more high-quality research-intensive teaching, means that blended teaching is becoming an ever more important part of the lecturer's repertoire.

In practical terms, blended delivery provides a mechanism by which teaching staff can overcome institutional constraints by 'creating' more space in the timetable and making more proactive use of the available teaching space. However, in the context of the case outlined in this paper, this meant that the course team needed to carefully consider the impact that this would have on both the content of the material delivered and the ways in which a change in delivery could alter the dynamic of how the material was received. The most important decision, and the one the formed the foundation of the changes was pedagogical rather than practical: how could we increase the level and quality of student engagement with the material, and improve their critical thinking skills? Rather than a merely practical response, there needed to be a clear educational rationale to all the changes made.

The case study for this paper is the changes made to a long-standing second-year optional module in Cultural Geography, which provides students with a theoretical and thematic grounding in the sub-discipline. Delivered through a series of traditional lectures to a group of over 80 students, and assessed by examination, this module had consistently scored well in student module feedback for content and delivery. However, for the 2015/16 session a need to reconfigure the module as part of wider, ongoing curriculum reforms, presented an opportunity to address student feedback requesting an increase in seminar-style interaction. This presented a challenge, not for purely pedagogical reasons, but also from a practical point of view.

Like many large institutions there are a wide range of constraints that the academic has to work with. Firstly, timetabling often restricts the amount of available contact time available for each module, meaning that contact time is particularly at a premium with large groups. Secondly, there is a finite amount of teaching space that has not kept pace with the increase in students and increase of teaching contact hours. This space is often dated and not always suitable for small-group work, and the capital investment and the work needed to replace these is lengthy. This means that innovative ways of increasing contact needed to be sought. For the module under discussion it was decided to introduce 'blended lectures' to facilitate and reorient an increase in content. This reorientation also presented the possibility to introduce new formative opportunities to challenge and evaluate student understanding.

The decision to pre-record the lecture material was primarily a practical response to the institutional time pressures the course team experienced, from multiple directions. The university has a finite number of teaching slots, and thus increasing 'in-the-room' time is not an option. Likewise, the combined time pressures of teaching, research and administration means that any increase in student contact needs to balanced out against other work commitments. Pre-recording the lectures could be spread out over the summer teaching recess, reducing its initial time impact. Once recorded this archived material could then be amended and altered as and when needed over future iterations of the module. It further allowed time for the team to prepare the material for the in-class sessions.

A key concern for the lecture team was managing the dynamics of small-group work in a large cohort and within the space of a large lecture room. In an ideal situation, there would be ample

time to see the cohort in small groups, in a room that enabled students to work in clusters over numerous sessions. However, reality rarely meets the ideal, and so the situation requires careful management. At the risk of the sessions becoming stilted, as the lecturer moves between groups, a focus for each discussion is needed to keep the students engaged. Likewise, regular moments to pause, comment or feedback to the larger group are needed. As Healey *et al* (1996, p. 168) note, 'simply putting students in groups and telling them to work together does not automatically lead to these benefits [higher achievement, positive student relationships]. The learning situations have to be carefully structured'.

This module teaches a range of topics in Cultural Geography, from the sub-discipline's historiography, through to issues of landscape, memory, power, time, gender and modernity. Lectures that had previously been delivered in a traditional lecture theatre setting, and later provided as an online podcast, were replaced and in places re-written. The taught components of the module were pre-recorded ahead of the classroom sessions, taking the form of the lecturer speaking to the powerpoint slides. These were posted on the institution's VLE allowing the students to watch the material in advance. The module team expected the students to watch the lectures at a time convenient to them and to reflect on key ideas before engaging with the seminar material. This flexibility of engagement would allow students of varying abilities to engage with the content at their own pace. More importantly, blended lectures would do more than simply mix traditional and online content, but would encourage students to develop independent deep learning strategies to reinforce their understanding of the subject (Hinterberger *et al* 2004; Moore and Gilmartin 2010; Kanard 2013, Graham *et al* 2017). By providing all study material a minimum of 5 days in advance of the session, students were also afforded plenty of opportunity to engage with the module team during drop-in sessions if required.

In addition to the pre-recorded lectures, the students were also required to have read a related academic paper before the classroom session. The article provided the focus for a structured seminar replacing the conventional lecture with a 'flipped' format (Rowley and Green 2015). The first half of the seminar session required students, in small groups of 6 to 8 students, to consider a set of pre-set key questions raised by the paper. An informal discussion then followed with each group asked to report back to the wider cohort. This proved an effective delivery mechanism on a number of levels. Firstly, it allowed time for the lecturer to move between the groups to answer

queries and ask questions to challenge student understanding, providing instantaneous formative feedback. Secondly, it provided an extra level of formative feedback as the groups listened and responded to the other group's points.

In the second half of the classroom session, the key themes and concepts identified in the first half were then utilised to interpret a chosen case study, often a piece of video, which illustrated the lecture themes, again with structured questions and discussion. This has the benefit of reinforcing the student's understanding, allowing them to try applying theoretical positions to real life examples and discuss the understandings they may generate.

Although the result is the doubling of content delivered in the module, the benefits are wider than merely an increase in academic material. This was also a pedagogic response to allow students more time to engage with the lecture material. However, as a teaching team we need to make a number of decisions in advance about the ways in which we are going to deliver the in-class workshop material. Central to this were the techniques needed to overcome the restrictions placed upon us by the allocated teaching space, and ways in which small-group work could be fostered without the dynamic in the room becoming forced or stilted. Although some of this could be planned in advance, we needed to make sure that there was a certain amount of adaptability to cater for the nature of the students taught. In this case, we needed to adopt a delivery strategy that fostered small group work to a large cohort in a teaching space that was not spatially designed for such interaction. Although timetabling a space for a group of 80 students was not a problem, the quality and nature of the teaching spaces was an issue.

Evaluation of the module: feedback forms; focus groups

To evaluate the impact of introducing a blended delivery format to the module and student's reactions to the work expectations three different ways we drew upon three different methods of feedback over two cycles of delivery:

- Firstly, we used the university's standard module feedback forms, to provide a comparative to the module before the implementation of blended lectures.

- Secondly, we issued students with an additional bespoke form at the same time which asked specific questions about the students' experience of using pre-recorded lectures, preparative material and of attending the workshops.

- Finally, follow-up focus groups were held by a neutral party after the examination was taken. Two groups – one that had attended 80%+ of workshops and one that had attended 20% or less- were then invited to discuss whether they felt their engagement had influenced their exam preparation.

By triangulating these different evaluations, we hoped to gain a greater depth of understanding about: how the students engaged with the change in delivery styles; the perceived increase in workload; the level of engagement with the wider course material. Further, the focus group aimed to provide a qualitative element to examine if there were any links between the level of engagement with the recordings, workshop attendance and exam performance.

In the first iteration of the revised module the allocated room was a traditional, single level lecture theatre with fixed benches and seating, which was full to capacity. This made putting students in to small groups difficult, and may well have discouraged students to attend all the sessions. As one respondent in the focus groups following the first iteration of delivery notes, '[the] setting was quite difficult with people sitting on tables and getting chairs, it hard to write notes', whilst another commented that the room was, 'Timetabled for a lecture...' and as such '…was awful for discussion… needing space for flipcharts and a roundtable format.'

In the second iteration of the module, the room allocated was an improvement, although again, had fixed desks, restricting the ability to easily put students in to small groups. This experience echoes that of Graham *et al* (2017), who reflecting upon lecture flipping at an Australian university argue that, '…teaching spaces appropriate to your class size, course materials and learners' needs is one of the most critical pragmatic considerations for a flipped classroom approach…', but are the hardest to obtain due a dominance in most institutions of traditional teaching spaces, and timetable competition to access the more flexible spaces available.

Pedagogically, whilst providing a structured depth of engagement with key concepts, the blended method of delivery importantly provided students with a safe, non-judgemental environment where they could try out ideas with their peers via face-to-face interaction in small groups, and more

formally through presenting to the wider group. This allowed them to build confidence in their abilities, and as a consequence a number of students commented that they began to make connections between themes and topics across the module, producing a deep level of understanding. As the student feedback for the second iteration of teaching showed, 'The fact the lectures and reading had to be done in preparation for the workshop meant that the time within the workshop could be used to gain a broader understanding of the topic,' whilst another added that the format 'Gave a wider understanding of the topic and now feel more prepared for the exam, being able to draw upon wider material and ideas.' This supports Brook and Beauchamp's (2013, p. 20) assertion that blended learning, 'potentially offers many advantages for both students and lecturers as it provides greater flexibility and responsiveness, can overcome limitations of time and space, and can support novel ways to learn…'

Aspiration

Following the insights of Kanard (2013), who provides a comprehensive overview of the use and impact of recorded lectures, it was hoped that use of a blended delivery would improve the cohort's overall exam performance, due to the students being more secure in their abilities to deploy their critical understanding of the subject matter. Notwithstanding, blended delivery also presented challenges and raised a number of pedagogical concerns. A key concern with making the lectures available in advance was an anticipated decline in attendance by those who did not perceive value in attending the seminar sessions or felt that the pre-recorded lectures could be viewed at a later date as part of exam preparation. Further, there was a concern that some students would over-rely on the recordings rather than engaging with the breadth of module material. These concerns were borne out at times by the level of attendance. In the first year of implementing blended delivery the module had 80 students registered, but the average attendance for the seminar sessions was in the mid-20s. In its second year of delivery, the cohort was again around 80, but the average attendance was around the mid-40s. Although, this could be in part explained by an unpopular early morning slot, on a day after a regular university student social evening, the level of attendance still surprised the module team, there were other reasons for non-attendance. This matches the experience of a number of studies, which recorded a decline in attendance compared to live sessions (Brook and Beauchamp 2015; Kanard 2013).

Redesigning course material to try to circumvent institutional constraints, however, can have unintended impacts elsewhere, especially around some of the 'softer', qualitative elements of teaching. A previously unconsidered issue that emerged after the first iteration of the redesigned module was a change in the delivery dynamics of the lectures. As the course material was prepared in advance of the session, by staff members talking to the PowerPoint slides in their offices, it was found that the vitality and performative qualities engendered by presenting to a room of students were diminished. A lack of spontaneity and immediate visual feedback when gauging understanding may have made the delivery seem dry to some. Although students were able to pause, rewind and revisit things that they may not have fully understood, this may have detracted from the student's engagement with the recordings and wider material. This was reflected in student feedback that…

Another impact, that has been noted elsewhere, is the perceived increase in work from the student. This can be seen in both a positive and negative light in the feedback. For some, the need to prepare ahead of the workshop sessions provided an incentive to engage with the material in way that they may not have done in other, lecture-based modules. As one student noted the format, 'Forces us to engage with the reading outside of the lectures', whilst another noted that under a conventional lecture structure they would be '…be less motivated to carry out further reading and engage less with the course content.' A sentiment echoed in a number of responses. However, others found the level of work required in preparation a challenge, and a detriment to attendance. In one focus group, a student remarked that it was sometimes '…hard to get it all done (reading and listening to lectures) especially when expected to engage, so if you haven't done the work you are really unlikely to go.' This is echoed by another student who remarked that, 'If you haven't done reading no point being there.'

Is there a connection between engagement and performance?

It is always difficult to evaluate the impact of a teaching intervention after a short period of implementation. However, one clear measure of the impact of blended lectures can be seen in the metric examination of exam performance. The institutional VLE used allows the instructor to examine a range of statistics as to who accesses the online lectures, when, how often they do so, and for how long. It also enabled the team to observe engagement during the semester's teaching period, and the two week period immediately before the exam to give a broad sense of when and

how students accessed the material (cf. Owston *et al.*, 2013). This was then compared with student responses in a focus group and feedback form specifically designed to address the blended delivery.

Observations

For both iterations of the delivery we identified the 20 students who engaged most fully with the lecture videos by the number of minutes watched at the end of S2. Out of these students, those that attended 80% or more of the seminar sessions were noted (12 out of 20 in year 1; 25 out of 50 in year 2). The exam performance of each cohort was then compared to attendance of the workshop sessions.

More than two thirds of those that watched the pre-recorded lectures for the longest amount of time, were also amongst the most regular attendees of the seminar sessions. For both iterations of the module, nearly all these students scored 66% and above for each exam answer, with half the students scoring marks greater than 70% on at least one question. This suggests that having time to engage with and reflect upon the lecture, along with developing a deeper level of engagement through the readings, discussions and worked examples gave the students greater opportunity to become more critically engaged in the subject matter. In contrast to this, the outcomes for those that only engaged in watching the online videos, and who attended 20% or less of seminars was very different. The average mark was 58% for those in the first year of delivery. This reflects a lower depth of critical engagement with the course material. For some, their engagement with the recorded material was in the three-week period immediately before the exam. This raises an issue that is difficult to tease out from the data, whether this merely indicates that the more engaged students are by their nature those that perform better, reinforcing their higher scores, and that those less engaged are the opposite? However, a rough metric evaluation matches the comments made by students made in the focus groups following the exam. For those that attended most sessions, they noted that, '…although it felt like a lot of work, it was worth it, and was a massive advantage going into the exam.' One student observed that 'it made it easier to move beyond the lecture material in the exam' enabling them to engage with the exam questions in a more critical and reflective manner.

Positive Comments	***Negative Comments***

How much of the course content did you engage with?	
'Did all the wider reading and watched the videos, but the seminars were a bit scary.'	'I listened to all the lectures, but not all the way through.'
'All of it and felt the seminars helped challenge your ideas.'	Hard to get it all done (reading and listening to language) especially when expected to engage so if haven't done work you really unlikely to go.
How do the pre-recorded lectures rate against attending a live lecture?	
'Easier to make comprehensive notes'	'I get easily distracted at home and often forgot to watch the lectures'
'Panopto allowed you to focus, you could pause and make notes'	'Less motivating'
What aspects of the seminars did you like?	
'Makes you feel like you are discussing ideas properly'	'The way people reported back was at times awkward and repetitive'
'You had a better interaction with the staff and it forces you to engage with the ideas.'	
'talking and hearing – wider sense of what's being said – not just what's being lectured.'	
How Useful were the workshops for developing your understanding?	
'…it builds on the lecture material and due to talking about it… you remember it more.'	'If you hadn't done the work it was hard to engage'
'It brings more purpose to the lecture…'	
'alternative interpretations of ideas/readings could be explored'	

Table 1: Examples of student responses and comments.

As seen in the comments outlined in table 1 the pre-recorded lectures do not necessarily fit with all students' ways of learning. For some the formality of a traditional lecture session allows them to focus and restricts distraction, finding that they lacked motivation or adequate time management skills to engage with the material sufficiently in their own time. However, for others watching the lectures at home, this had the opposite effect. Many appreciated the ability to stop, rewind or revisit elements of the lectures to reflect on key themes. For others, it had the positive effect of

encouraging a higher level of engagement. A common view was as follows, 'I would have only come to the lectures and probably not done any reading.'

Reflections on practice and impact on learning and assessment performance. TEF context of research intensive teaching.

Our observations over two years of using blended delivery on this module, along with student comments and feedback, show a set of positives can be taken from this approach to organising teaching. This must be tempered, however, with improvements in delivery and expectation management going forward. There is a certain level of disjuncture between students wanting an increase in content, whilst simultaneously not wanting an increase in personal workload. This is in part due to the perception of lectures as 'proper' contact, where material, which they are paying for with their fees, is delivered to them. This requires an engagement with students from the start of the degree programme to elucidate work expectations, and a to develop a clear understanding of active learning practices.

With a wider range of pressures on student time, such as balancing study and work, students like the flexibility of access to the pre-recorded lectures on Canvas, allowing them to listen and make notes at their own pace. For those attending the seminars regularly, this enabled them to be proactive in targeting reading around the topic areas. A significant number, however, preferred the spontaneity of traditional face-to face lectures and only really engaged with the recordings as exams approached. As a theoretically driven course, the seminars encouraged the students to explore and debate ideas, and apply these to practical examples. For those that regularly attended, this fostered debate and wider thought. However, for many the prospect of speaking in front of other students was onerous and even intimidating. This had the consequence of a number of students missing the chance to synthesise and apply material to a range of material. Debate and discussion in the flipped sessions allowed the students to reflect on the ideas of others and to receive constant feedback and challenge from staff. These deeper, critically develop and more nuanced understandings were those that we sought in the examinations.

Conclusion

In the UK University sector, the role and nature of teaching is increasingly becoming a focus of Government attention. On the back of the Stern Review of the Research Excellence Framework (REF) (2016), a greater emphasis is being placed on the need to link the impact of research to that of teaching, stressing the intertwined nature of the two processes. A key recommendation of the report is a call for universities to align the REF and the TEF, emphasising that '…research leading to major impacts on curricula and /or pedagogy within or across disciplines should be included' (2016, p. 23). As universities engage with the remit of the Teaching Excellence Framework, they are beginning a process of re-evaluating their pedagogical strategies in line with an increasing focus on Research Intensive Teaching. As a central tenet of the next iterations of the process (TEF 3 and 4) greater focus will be placed on individual academic departments to emphasise how they embed critical research-informed and research-based pedagogies as part of a wider strategy to develop Research Intensive Teaching focused curricula.

Pressure on developing increased points of Research Intensive Teaching, from an institutional point of view, means that staff need to adopt innovative methods to deliver high quality academic content. Staff and senior managers alike need to acknowledge the challenges this poses in the face of institutional lags regarding investment in and the building or refurbishment of suitable flexible spaces, the implementation of appropriate and robust teaching technologies and pressures on timetabling caused by both increased content and large groups at key stages of the curriculum. The ability of change how a module is delivered is a crucial component in meeting these new demands. This paper illustrates the pragmatism needed to meet these demands, whilst aiming to produce motivated, critically engaged learners, able to fulfil the role of undergraduate researchers. Blended delivery applied and linked to research focused applications allows one way to do this. However, this comes with some caveats. Developing new delivery strategies takes additional time to create, and as our experience has shown, will take a number of iterations to identify best practice and resolve problems. Further, innovating across multiple modules needs careful thought at the curriculum level to maintain a coherent teaching and assessment strategy.

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Using blended learning in place of formal lecture provision to overcome institutional constraints: reflections from a year two cultural geography module.

Abstract

The introduction of the Teaching Excellence Framework (TEF) in 2016 has placed the practice and quality of teaching centre of the UK university agenda, with concerns around contact, delivery, research/teaching balance and facility support framing debates within institutions. Situating the implementation of blended learning on a year 2 cultural geography in the broader context of these discussions, this paper explores some of the challenges and opportunities this approach has in addressing some of these broader concerns, whilst improving student engagement and performance. The paper argues that university teaching staff need to develop innovative and pragmatic approaches in delivering research intensive teaching and learning, whilst senior managers need to acknowledge that staff need time to create and refine new curricula in relation to lags in investment in infrastructure.

TEF, Blended Learning, Cultural Geography, Research Intensive Teaching

Introduction

Following the introduction of increased fees in the UK in 2012 there has been a concern to capture student experience of learning across a diverse sector and to promote teaching excellence across the sector to place teaching on an equal footing with research (Hubble 2017). In 2016 the UK Government introduced the Teaching Excellence Framework, to address the perceived disparities in student engagement between Research Intensive universities and more teaching focused institutions. As the landscape of the neo-liberal university increasingly seeks to hold teaching and learning to greater account, and a context of increased corporate managerialism and planning enters institutions to monitor national and local initiatives (Gibbs et al 2008; Brew and Manatai 2013; Walkington et al 2017), academic departments are responding in part by exploring innovative ways to deliver high quality, research-focused, learning and teaching. As academics try to meet these challenges, along with pressures on institutional space and resources, new ways of placing the educational benefits to the student need to be sought (Brew 2003; Malcom 2013). Situating teaching in the context of the changing internal and external pressures faced by academics in a Russell Group institution, this paper explores the role that blended learning offers in overcoming a number of institutional challenges, such as room structure and timetabling pressures, faced in delivering an innovative curriculum that aspires to use research-led framing to increase student engagement and develop higher level learning.

Over the last couple of decades there has been much debate covering the moves from lecturer-focused strategies for research knowledge delivery to the development of strategies to foster more interactive forms of research and enquiry that place the student at the centre of the learning experience (for a good overview see Brew and Manatai 2013; Wood and Su 2017). This trend has been augmented by the TEF initiative as universities aim to address the schemes aspirations as well as other excellence indicators such as the National Student Survey and respond to the changing funding realities of the HE sector. In some Russell Group universities there is heightened pressure on staff to increase student contact hours, whilst balancing other pressures around research performance and increasing student numbers. This often comes at a time when there is a lag in institutional investment in teaching facilities and learning support technology.

An issue that needs further investigation, is the way in which blended approaches to learning can provide innovative opportunities to surmount institutional constraints. Taking the case study of a second-year Cultural Geography module, this paper explores the ways in which blended delivery offers opportunities and challenges - for both teaching staff and students alike - in addressing the problems of timetabling restrictions and spatial constraints created in the face of demands for increased contact in the modern neo-liberal fee-paying university sector in the United Kingdom. It then opens this out to explore the impact this has on student engagement and performance (Healy 2005; Turner et al 2008; Cuthbert et al 2012; Spronken-Smith et al 2014)

The use of digital learning environments over the past 20 years has often been viewed as a panacea to engage students with a more proactive style of learning, with the ability to record, store and replay lectures, linked with online materials and assessments allowing a wider breadth of access and a flexibility of interaction. Blended lectures have become an increasingly popular mechanism for adding 'value' to the student experience, by providing a learning mechanism and context that encourages deep learning strategies, and fosters small-group discussion. One aspect that is often absent in discussions is the potential to address underlying institutional constraints. In the current UK Higher Education landscape, with students paying high fees, increased attention is being placed on the support and provision students receive as educational consumers. However, institutions and staff alike need to meet these aspirations in the face of a disjuncture in capital investment in teaching space and educational technology.

Improving student engagement with a subject is a familiar problem for lecturing staff, particularly when teaching a range of theoretical and conceptual ideas, which may at times appear disconnected from everyday experience. In a perfect world, students would act as independently motivated and engaged individuals, critically reflecting on, and applying a range of theoretical ideas and concepts themselves. However, experience has shown that students often need a range of support mechanisms to develop a deeper understanding of ideas, and provide confidence in their application. This paper is structured as follows: a reflection upon the experience of introducing a 'blended lecture' structure to the teaching of Cultural Geographies to a cohort of year 2 students at a UK university as a response to timetable and room-booking constraints. It then outlines the methods of delivery and evaluates how this encourages deeper learning amongst students, whilst creating a feedback loop that allows for guided discussion and in-class debate. It will then evaluate the impact on student engagement and the influence on assessment outcomes. Finally, the paper

reflects on the impacts of the changes in relation to staff teaching strategies, and how Blended Learning fits with calls for an increase in research intensive teaching.

Literature review

Blended learning has become a focus of much academic attention, as educational practitioners have explored new ways of engaging students and improving the quality of student performance (Hinterberger 2004). By combining traditional methods of delivery, such as face-to-face instruction with support from technological innovations - ranging from podcasts, through interactive online tests to online lectures and project work, new ways of facilitating student engagement, and challenging different pedagogical goals have been created. Often a mix of classroom work and self-guided study these approaches have been regarded as a way of fostering a culture of independent critical enquiry and peer-assisted learning amongst students (Hinterberger et al 2004; Moore and Gilmartin 2010). As new technology has developed over the past two decades, and universities have invested in interactive electronic learning environments, technology-mediated learning support at a number of levels has become a norm for most courses.

Much has been written in recent years about the impact that blended learning has had on student performance, highlighting the benefits that more flexible approaches to delivery have on student satisfaction, and a perceived improvement in feedback (Collopy and Arnold 2009; Mitchell and Forer 2010; Owston et al 2006; Owston et al 2013). However, one issue that needs further investigation, and is often underplayed in the literature, is the way in which blended approaches to learning can facilitate ways of overcoming institutional constraints caused by increased student numbers, such as congested timetabling and a desire to reduce repeat teaching, something alluded to recently by Martin et al (2017) in the context of teaching in Australia. Further, although attention has been paid to concerns over the investment in a robust IT infrastructure (Moskal et al 2013), the disjuncture between capital investment and the time needed to construct modern, flexible learning spaces, allied to wider sectoral demands to introduce more high-quality research-intensive teaching, means that blended teaching is becoming an ever more important part of the lecturer's repertoire.

In practical terms, blended delivery provides a mechanism by which teaching staff can overcome institutional constraints by 'creating' more space in the timetable and making more proactive use of

the available teaching space. However, in the context of the case outlined in this paper, this meant that the course team needed to carefully consider the impact that this would have on both the content of the material delivered and the ways in which a change in delivery could alter the dynamic of how the material was received. The most important decision, and the one the formed the foundation of the changes was pedagogical rather than practical: how could we increase the level and quality of student engagement with the material, and improve their critical thinking skills? Rather than a merely practical response, there needed to be a clear educational rationale to all the changes made.

Case Study: A year 2 Optional Module on Cultural Geography

The case study for this paper concerns the changes made to a long-standing second-year optional module in Cultural Geography, which aims to provide students with a theoretical and thematic grounding in the sub-discipline. This 10 credit worth of module forms part of a suite of year 2 optional modules open to students taking B.A. and B.Sc. degrees in Geography at a UK redbrick university. This module was originally delivered by a team of two experienced fulltime lecturers over an 11 week semester through a series of traditional, 2 hour lectures to a group of over 80 students. It is assessed by examination, and the module had consistently scored well in student module feedback for content and delivery. However, for the 2015/16 session there was a need to reconfigure the module as part of wider, ongoing curriculum reforms and changes to module contact time implemented by the university. This afforded an opportunity to address both past student feedback requesting an increase in seminar-style interaction, and to provide wider opportunities for formative feedback. This presented, however, a challenge, not for purely pedagogical reasons, but also from a practical point of view.

Like many research-intensive institutions there are a wide range of constraints that the academic has to work with. Firstly, timetabling often restricts the amount of available time available for each module, meaning that contact time is particularly at a premium. Secondly, there is a finite amount of teaching space, which has not kept pace with the increase in students and increase of teaching contact hours. This space is often dated, initially constructed in the post-war era of university expansion, and not always suitable for small-group work, and the capital investment and the work needed to replace it is lengthy. This means that innovative ways of increasing contact needed to be

sought. For the module under discussion it was decided to introduce 'blended lectures' to facilitate and reorient an increase in content. We define 'blended lectures' as a mix of pre-recorded lectures supported with powerpoint slides, the guided reading of key papers, supported with in-class discussion and the use of a workshop session in which ideas and concepts are applied to a case study. In practice, this required module staff to pre-record *n* lectures/upload these lectures with new course seminar materials, etc., etc. This reorientation also presented the possibility to introduce new formative opportunities to challenge and evaluate student understanding.

The decision to pre-record the lecture material was primarily a practical response to the institutional time pressures the course team experienced, from multiple directions. The university has a finite number of teaching slots, and thus increasing 'in-the-room' time is not an option. Likewise, the combined time pressures of teaching, research and administration means that any increase in student contact needs to be balanced out against other work commitments. Pre-recording the lectures could be spread out over the summer teaching recess, reducing its initial time impact. Once recorded this archived material could then be amended and altered as and when needed over future iterations of the module. It further allowed time for the team to prepare the material for the in-class sessions.

A key concern for the lecture team was managing the dynamics of small-group work in a large cohort and within the space of a traditional lecture room. In an ideal situation, there would be ample time to see the cohort in small groups, in a room that enabled students to work in clusters over numerous sessions. However, reality rarely meets the ideal, and so the situation requires careful management. At the risk of the sessions becoming stilted, as the lecturer moves between groups, a focus for each discussion is needed to keep the students engaged. Likewise, regular moments to pause, comment or feedback to the larger group are needed. As Healey *et al* (1996, p. 168) note, 'simply putting students in groups and telling them to work together does not automatically lead to these benefits [higher achievement, positive student relationships]. The learning situations have to be carefully structured'.

This module teaches a range of topics in Cultural Geography, from the sub-discipline's historiography, through to issues of landscape, memory, power, time, gender and modernity. Lectures that had previously been delivered in a traditional lecture theatre setting, and later

provided as an online podcast, were replaced and in places re-written. The taught components of the module were pre-recorded ahead of the classroom sessions, taking the form of the lecturer speaking to the powerpoint slides. These were in the format of a traditional lecture, with a pause in content every 20 minutes. However, due to the lack of an audience feedback dynamic, these were on average a half hour shorter than a traditional 2 hour face-to-face session. The recordings and powerpoint slides were posted on the institution's VLE, allowing the students to watch and rewatch the material in advance. The module team expected the students to watch the lectures at a time convenient to them and to reflect on key ideas before engaging with the seminar material. This flexibility of engagement would allow students of varying abilities to engage with the content at their own pace, and afford the opportunity to revisit material as many times as they like. More importantly, blended lectures would do more than simply mix traditional and online content, but would encourage students to develop independent deep learning strategies to reinforce their understanding of the subject (Hinterberger *et al* 2004; Moore and Gilmartin 2010; Kanard 2013, Graham *et al* 2017). By providing all study material a minimum of 5 days in advance of the session, students were also afforded plenty of opportunity to engage with the module team during drop-in sessions if required.

In addition to the pre-recorded lectures, the students were also required to have read a related academic paper before the classroom session. The article provided the focus for a structured seminar replacing the conventional lecture with a 'flipped' format (Rowley and Green 2015). The first half of the seminar session required students, in small groups of 6 to 8 students, to consider a set of pre-set key questions raised by the paper. An informal discussion then followed with each group asked to report back to the wider cohort. This proved an effective delivery mechanism on a number of levels. Firstly, it allowed time for the lecturer to move between the groups to answer queries and ask questions to challenge student understanding, providing instantaneous formative feedback. Secondly, it provided an extra level of formative feedback as the groups listened and responded to the other group's points.

In the second half of the classroom session, the key themes and concepts identified in the first half were then utilised to interpret a chosen case study, often a piece of video, which illustrated the lecture themes, again with structured questions and discussion. This has the benefit of reinforcing the student's understanding, allowing them to try applying theoretical positions to real life examples and discuss the understandings they may generate.

Although the result is the doubling of content delivered in the module, the benefits are wider than merely an increase in academic material. This was also a pedagogic response to allow students more time to engage with the lecture material, and to allow the student to develop their critical thinking skills. However, as a teaching team we need to make a number of decisions in advance about the ways in which we are going to deliver the in-class workshop material. Central to this were the techniques needed to overcome the restrictions placed upon us by the allocated teaching space, and ways in which small-group work could be fostered without the dynamic in the room becoming forced or stilted. Although some of this could be planned, we needed to make sure that there was a certain amount of adaptability to cater for the nature of the students taught. In this case, we needed to adopt a delivery strategy that fostered small group work in a teaching space that was not spatially designed for such interaction. Although timetabling a space for a group of 80 students was not a problem, the quality and nature of the teaching spaces was an issue.

Evaluation of the module: feedback forms; focus groups

To evaluate the impact of introducing a blended delivery format to the module and student's reactions to the work expectations three different ways we drew upon three different methods of feedback over two cycles of delivery:

- Firstly, we used the university's standard module feedback forms. This had been used in past iterations of the module before the delivery change and would provide a comparative to the module before the implementation of blended lectures.
- Secondly, we issued students with an additional bespoke form at the same time which asked specific questions about the students' experience of using pre-recorded lectures, preparative material and of attending the workshops.
- Finally, follow-up focus groups were held by a neutral party after the examination was taken. The cohort was invited to participate in focus group sessions to discuss the new delivery format. From the volunteers two groups were created – one that had attended 80%+ of workshops and one that had attended 20% or less- which were then invited to discuss whether they felt their engagement had influenced their exam preparation. Each session lasted an hour, and allowed students to reflect on the impact the blended format had had on their performance post exam.

By triangulating these different evaluations, we hoped to gain a greater depth of understanding about: how the students engaged with the change in delivery styles; the perceived increase in workload; the level of engagement with the wider course material. Further, the focus group aimed to provide a qualitative element to examine if there were any links between the level of engagement with the recordings, workshop attendance and exam performance.

In the first iteration of the revised module the allocated room was a traditional, single level lecture theatre with fixed benches and seating, which was full to capacity. This made putting students in to small groups difficult, and may well have discouraged students to attend all the sessions. As one respondent in the focus groups following the first iteration of delivery notes, '[the] setting was quite difficult with people sitting on tables and getting chairs, it was hard to write notes', whilst another commented that the room was, 'Timetabled for a lecture...' and as such '…was awful for discussion… needing space for flipcharts and a roundtable format.'

In the second iteration of the module, the room allocated was an improvement, although again, had fixed desks, restricting the ability to easily put students in to small groups. This experience echoes that of Graham *et al* (2017), who reflecting upon lecture flipping at an Australian university argue that, '…teaching spaces appropriate to your class size, course materials and learners' needs is one of the most critical pragmatic considerations for a flipped classroom approach…', but are the hardest to obtain due a dominance in most institutions of traditional teaching spaces, and timetable competition to access the more flexible spaces available.

Pedagogically, whilst providing a structured depth of engagement with key concepts, the blended method of delivery importantly provided students with a safe, non-judgemental environment where they could try out ideas with their peers via face-to-face interaction in small groups, and more formally through presenting to the wider group. This allowed them to build confidence in their abilities, and as a consequence a number of students commented that they began to make connections between themes and topics across the module, producing a deep level of understanding. In the original lecture-based format for the module, students in-class performance was predominantly restricted to the group being asked to respond to questions from the lecturer during the lecture itself. This was either met with reticence, engaged with by a small cadre of confident students or relied on the lecturer selecting respondents at random - none of which was

satisfactory. The blended format provided a less confrontational arena that allowed a more diverse range of students with different levels of confidence to discuss and debate ideas. In the first iteration of teaching we asked groups to present feedback to the rest of the group formally from the front of the room. This was unpopular, as one focus group respondent noted, 'some people didn't like it and felt thrust up to the front'. As the module developed a more informal system of groups feeding back from the floor developed, which garnered more positive reactions. Feedback from the second iteration highlighted how the '…discussion brought to light ideas that I previously would not have thought of', whilst another student noted that the sessions were '…extremely helpful both as motivation to engage in wider reading and a chance to discuss things to get different perspectives and a greater understanding'.

The change in dynamic that required students to prepare material in advance, rather than engage with it post-lecture meant that students became increasingly confident with the material. As the student feedback for the second iteration of teaching showed, 'The fact the lectures and reading had to be done in preparation for the workshop meant that the time within the workshop could be used to gain a broader understanding of the topic,' whilst another added that the format 'Gave a wider understanding of the topic and now feel more prepared for the exam, being able to draw upon wider material and ideas.' This supports Brook and Beauchamp's (2013, p. 20) assertion that blended learning, 'potentially offers many advantages for both students and lecturers as it provides greater flexibility and responsiveness, can overcome limitations of time and space, and can support novel ways to learn…'

Aspiration

Following the insights of Kanard (2013), who provides a comprehensive overview of the use and impact of recorded lectures, it was hoped that use of a blended delivery would improve the cohort's overall exam performance, due to the students being more secure in their abilities to deploy their critical understanding of the subject matter. Notwithstanding, blended delivery also presented challenges and raised a number of pedagogical concerns. A key concern with making the lectures available in advance was an anticipated decline in attendance by those who did not perceive value in attending the seminar sessions or felt that the pre-recorded lectures could be viewed at a later date as part of exam preparation. All optional modules on this degree programme do not stipulate that

attendance is compulsory, although there are a few points during the semester when all courses undertake compulsory attendance monitoring. Beyond this the module team believed that the students needed to take personal responsibility for their engagement with course sessions and materials. Even with this in mind, there was a concern that some students would over-rely on the recordings rather than engaging with the breadth of module material. These concerns were borne out at times by the level of attendance. In the first year of implementing blended delivery the module had 80 students registered, but the average attendance for the seminar sessions was in the mid-20s. In its second year of delivery, the cohort was again around 80, but the average attendance was around the mid-40s. Although, this could be in part explained by an unpopular early morning slot, on a day after a regular university student social evening, the level of attendance still surprised the module team, there were other reasons for non-attendance. However, this matches the experience of a number of studies, which recorded a decline in attendance compared to live sessions (Brook and Beauchamp 2015; Kanard 2013). It does raise issues going forward about the nature of module evaluation at both a course level, and how this fits into the wider evaluation context of both the National Student Survey (NSS) and a subject level TEF, with a perceived tension between traditional lectures seen as 'value for money' and broadening of online material to support innovative delivery.

Redesigning course material to try to circumvent institutional constraints, however, can have unintended impacts elsewhere, especially around some of the 'softer', qualitative elements of teaching. A previously unconsidered issue that emerged after the first iteration of the redesigned module was a change in the delivery dynamics of the lectures. As the course material was prepared in advance of the session, by staff members talking to the PowerPoint slides in their offices, it was found that the vitality and performative qualities engendered by presenting to a room of students were diminished. A lack of spontaneity and immediate visual feedback when gauging understanding may have made the delivery seem dry to some. Although students were able to pause, rewind and revisit things that they may not have fully understood, this may have detracted from the student's engagement with the recordings and wider material.

Another impact, is the perceived increase in work from the student. This can be seen in both a positive and negative light in the feedback. For some, the need to prepare ahead of the workshop sessions provided an incentive to engage with the material in way that they may not have done in

other, lecture-based modules. As one student noted the format, 'Forces us to engage with the reading outside of the lectures', whilst another noted that under a conventional lecture structure they would be '…be less motivated to carry out further reading and engage less with the course content.' A sentiment echoed in a number of responses. However, others found the level of work required in preparation a challenge, and a detriment to attendance. In one focus group, a student remarked that it was sometimes '…hard to get it all done (reading and listening to lectures) especially when expected to engage, so if you haven't done the work you are really unlikely to go.' This is echoed by another student who remarked that, 'If you haven't done reading no point being there.'

Is there a connection between engagement and performance?

It is always difficult to evaluate the impact of a teaching intervention after a short period of implementation. However, one clear measure of the impact of blended lectures can be seen in the metric examination of exam performance. The institutional VLE used allows the instructor to examine a range of statistics as to who accesses the online lectures, when, how often they do so, and for how long. It also enabled the team to observe engagement during the semester's teaching period, and the two week period immediately before the exam to give a broad sense of when and how students accessed the material (cf. Owston *et al.*, 2013). This was then compared with student responses in a focus group and feedback form specifically designed to address the blended delivery.

Observations

For both iterations of the delivery we identified the 20 students who engaged most fully with the lecture videos by the number of minutes watched at the end of S2. Out of these students, those that attended 80% or more of the seminar sessions were noted (12 out of 20 in year 1; 25 out of 50 in year 2). The exam performance of each cohort was then compared to attendance of the workshop sessions.

More than two thirds of those that watched the pre-recorded lectures for the longest amount of time, were also amongst the most regular attendees of the seminar sessions. For both iterations of the module, nearly all these students scored 66% and above for each exam answer, with half the students scoring marks greater than 70% on at least one question. This suggests that having time to

engage with and reflect upon the lecture, along with developing a deeper level of engagement through the readings, discussions and worked examples gave the students greater opportunity to become more critically engaged in the subject matter. In contrast to this, the outcomes for those that only engaged in watching the online videos, and who attended 20% or less of seminars was very different. The average mark was 58% for those in the first year of delivery. This reflects a lower depth of critical engagement with the course material. For some, their engagement with the recorded material was in the three-week period immediately before the exam. This raises an issue that is difficult to tease out from the data, whether this merely indicates that the more engaged students are by their nature those that perform better, reinforcing their higher scores, and that those less engaged are the opposite? However, a rough metric evaluation matches the comments made by students made in the focus groups following the exam. For those that attended most sessions, they noted that, '…although it felt like a lot of work, it was worth it, and was a massive advantage going into the exam.' One student observed that 'it made it easier to move beyond the lecture material in the exam' enabling them to engage with the exam questions in a more critical and reflective manner.

Positive Comments	***Negative Comments***
How much of the course content did you engage with?	
'Did all the wider reading and watched the videos, but the seminars were a bit scary.'	'I listened to all the lectures, but not all the way through.'
'All of it and felt the seminars helped challenge your ideas.'	Hard to get it all done (reading and listening to language) especially when expected to engage so if haven't done work you are really unlikely to go.
How do the pre-recorded lectures rate against attending a live lecture?	
'Easier to make comprehensive notes'	'I get easily distracted at home and often forgot to watch the lectures'
'Panopto allowed you to focus, you could pause	'Less motivating'

and make notes'	
What aspects of the seminars did you like?	
'Makes you feel like you are discussing ideas properly'	'The way people reported back was at times awkward and repetitive'
'You had a better interaction with the staff and it forces you to engage with the ideas.'	
'talking and hearing – wider sense of what's being said – not just what's being lectured.'	
How Useful were the workshops for developing your understanding?	
'…it builds on the lecture material and due to talking about it… you remember it more.'	'If you hadn't done the work it was hard to engage'
'It brings more purpose to the lecture…'	
'alternative interpretations of ideas/readings could be explored'	

Table 1: Examples of student responses and comments.

As seen in the comments outlined in table 1 the pre-recorded lectures do not necessarily fit with all students' ways of learning. For some the formality of a traditional lecture session allows them to focus and restricts distraction, finding that they lacked motivation or adequate time management skills to engage with the material sufficiently in their own time. However, for others watching the lectures at home, this had the opposite effect. Many appreciated the ability to stop, rewind or revisit elements of the lectures to reflect on key themes. For others, it had the positive effect of encouraging a higher level of engagement. A common view was as follows, 'I would have only come to the lectures and probably not done any reading.'

Reflections on impact of blended delivery in the context of TEF.

Our observations over two years of using blended delivery on this module, along with student comments and feedback, show a set of positives can be taken from this approach to organising teaching. This must be tempered, however, with improvements in delivery and expectation management going forward. There is a certain level of disjuncture between students wanting an increase in content, whilst simultaneously not wanting an increase in personal workload. This is in part due to the perception of lectures as 'proper' contact, where material, which they are paying for with their fees, is delivered to them. By encouraging students to become pro-active participants in how they learn, and to reflect on their own learning strategies goes some way towards developing an ethos where students become increasingly involved in the creation and pedagogical development of content (for a wider discussion of student co-production and creation see Bovill et al 2011; Cook-Sather 2008a; 2008b; 2009; Cook-Sather and Des-Ogugua 2018). However, this is a culture that needs nurturing beyond the level of the individual module, and requires an engagement with students from the start of the degree programme to elucidate work expectations. Moving students away from feeling as though they are educational consumers, to develop a clear understanding of active learning practices, over time may help to build towards a curriculum that aligns itself more fully to the wider pedagogic ambitions of the TEF. More importantly it helps develop students who are best placed to take ownership of their own learning strategies.

With a wider range of pressures on student time, such as balancing study and work, students like the flexibility of access to the pre-recorded lectures on a VLE, allowing them to listen and make notes at their own pace. For those attending the seminars regularly, this enabled them to be proactive in targeting reading around the topic areas. A significant number, however, preferred the spontaneity of traditional face-to face lectures and only really engaged with the recordings as exams approached. As a theoretically driven course, the seminars encouraged the students to explore and debate ideas, and provided a context for them to apply these to practical examples. For those that regularly attended, this fostered debate and wider thought. However, for many the prospect of speaking in front of other students was onerous and even intimidating. This had the consequence of a number of students missing the chance to synthesise and apply ideas to a range of material. Debate and discussion in the flipped sessions allowed the students to reflect on the ideas of others

and to receive constant feedback and challenge from staff. These deeper, critically develop and more nuanced understandings were those that we sought in the examinations.

Conclusion

This study has shown that blended learning provides an opportunity for those currently working in fast-changing sector to create innovative responses to institutional constraints on space and time. In doing so, it can allow a change in pedagogic engagement which encourages students to proactively develop and hone their critical thinking skills in an applied way. However, underlying this is a tension between student's perceptions of contact and workload that requires a wider change in learning culture. A consideration of this may prove timely. In the UK University sector, as elsewhere in the HE world, the role and nature of teaching is increasingly becoming a focus of Government attention. On the back of the Stern Review of the Research Excellence Framework (REF) (2016), a greater emphasis is being placed on the need to link the impact of research to that of teaching, stressing the intertwined nature of the two processes. A key recommendation of the report is a call for universities to align the REF and the TEF, emphasising that '…research leading to major impacts on curricula and /or pedagogy within or across disciplines should be included' (2016, p. 23). As universities engage with the remit of the Teaching Excellence Framework, they are beginning a process of re-evaluating their pedagogical strategies in line with an increasing focus on Research Intensive Teaching. As a central tenet of the next iterations of the process (TEF 3 and 4) greater focus will be placed on individual academic departments to emphasise how they embed critical and reflective research-informed and research-based pedagogies as part of a wider strategy to develop Research Intensive Teaching focused curricula.

Pressure on developing increased points of Research Intensive Teaching, from an institutional point of view, means that staff need to adopt innovative methods to deliver high quality academic content. Staff and senior managers alike need to acknowledge the challenges this poses in the face of institutional lags regarding investment in, and the building or refurbishment of, suitable flexible spaces, the implementation of appropriate and robust teaching technologies and pressures on timetabling caused by both increased content and large groups at key stages of the curriculum. The ability of change how a module is delivered is a crucial component in meeting these new demands. This paper illustrates the pragmatism needed to meet these demands, whilst aiming to produce motivated, critically engaged learners, able to fulfil the role of undergraduate researchers. Blended

delivery applied and linked to research focused applications allows one way to do this. However, this comes with some caveats. Developing new delivery strategies takes additional time to create, and as our experience has shown, will take a number of iterations to identify best practice and resolve problems. Further, innovating across multiple modules needs careful thought at the curriculum level to maintain a coherent teaching and assessment strategy.

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Using blended learning in place of formal lecture provision to overcome institutional constraints: reflections from a year two cultural geography module.

Abstract

The introduction of the Teaching Excellence Framework (TEF) in 2016 has placed the practice and quality of teaching centre of the UK university agenda, with concerns around contact, delivery, research/teaching balance and facility support framing debates within institutions. Situating the implementation of blended learning on a year 2 cultural geography in the broader context of these discussions, this paper explores some of the challenges and opportunities this approach has in addressing some of these broader concerns, whilst improving student engagement and performance. The paper argues that university teaching staff need to develop innovative and pragmatic approaches in delivering research intensive teaching and learning, whilst acknowledging that staff need time to create and refine new curricula in relation to lags in investment in infrastructure.

Blended Learning, Cultural Geography, Research Intensive Teaching TEF

Introduction

Following the introduction of increased fees in the UK in 2012 there has been a concern to capture student experience of learning across a diverse sector and to promote teaching excellence across the sector to place teaching on an equal footing with research (Hubble 2017). In 2016 the UK Government introduced the Teaching Excellence and Student Outcomes Framework, (TEF)to address the perceived disparities in student engagement between Research Intensive universities and more teaching focused institutions. The aim of this assessment is to use a range of existing statistical measures, across six categories (*Teaching on my course*; *Assessment and feedback*; *Academic support*; *Drop-out rate; Employment or further study*; *Highly skilled-employment or further study*), to evaluate teaching quality, learning environment, and student outcomes and learning gain (HEFCE 2016). Unlike traditional university league tables the TEF assesses performance against benchmarks based on their student intake, rather than providing an absolute measure of performance. The ratings are thus a measure of whether a university exceeds, meets or falls short of expectations based on the profile of students admitted and subjects taught. The benefit for those institutions achieving the highest level – Gold – will be the government determining their ability to raise course fees.

As the landscape of the neo-liberal university increasingly seeks to hold teaching and learning to greater account, and a context of increased corporate managerialism and planning enters institutions to monitor national and local initiatives (Gibbs et al 2008; Brew and Manatai 2013; Walkington et al 2017), academic departments are responding in part by exploring innovative ways to deliver high quality, research-focused, learning and teaching. As academics try to meet these challenges, along with pressures on institutional space and resources, new ways of placing the educational benefits to the student need to be sought (Brew 2003; Malcom 2013). Situating teaching in the context of the changing internal and external pressures faced by academics in a UK redbrick university (the term for a civic, city-based university founded in the late 19th and early 20th centuries), this paper explores the role that blended learning offers in overcoming a number of institutional challenges, such as room structure and timetabling pressures, faced in delivering an

innovative curriculum that aspires to use research-led framing to increase student engagement and develop higher level learning.

Over the last couple of decades there has been much debate covering the moves from lecturer-focused strategies for research knowledge delivery to the development of strategies to foster more interactive forms of research and enquiry that place the student at the centre of the learning experience (for a good overview see Brew and Manatai 2013; Wood and Su 2017). This trend has been augmented by the TEF initiative as universities aim to address the schemes aspirations as well as other excellence indicators such as the National Student Survey and respond to the changing funding realities of the HE sector. In some redbrick universities there is heightened pressure on staff to increase student contact hours, whilst balancing other pressures around research performance and increasing student numbers. This often comes at a time when there is a lag in institutional investment in teaching facilities and learning support technology.

An issue that needs further investigation is the way in which blended approaches to learning can provide innovative opportunities to surmount institutional constraints. Taking the case study of a second-year Cultural Geography module, this paper explores the ways in which blended delivery offers opportunities and challenges - for both teaching staff and students alike - in addressing the problems of timetabling restrictions and spatial constraints created in the face of demands for increased contact in the modern neo-liberal fee-paying university sector in the United Kingdom. It then opens this out to explore the impact this has on student engagement and performance (Healy 2005; Turner et al 2008; Cuthbert et al 2012; Spronken-Smith et al 2014)

The use of digital learning environments over the past 20 years has often been viewed as a panacea to engage students with a more proactive style of learning, with the ability to record, store and replay lectures, linked with online materials and assessments allowing a wider breadth of access and a flexibility of interaction. Blended lectures have become an increasingly popular mechanism for adding 'value' to the student experience, by providing a learning mechanism and context that encourages deep learning strategies, and fosters small-group discussion (Garrison and Kanuka 2004; Akyol and Garrison 2011). One aspect that is often absent in discussions is the potential to address underlying institutional constraints. TIn the current rhetoric surrounding theUK Higher Education landscape -, with the advent of the TEF, league tables and students paying high fees -, has placed increased attention is being placed on the support and provision students receive as supposed

educational consumers. However, institutions and staff alike need to meet these aspirations and perceptions in the face of a disjuncture in capital investment in teaching space and educational technology, whilst seeking a pedagogy that seeks to place the student as an active participant in learning at the centre of practice (Bovill et al 2011).

Improving student engagement with a subject is a familiar problem for lecturing staff, particularly when teaching a range of theoretical and conceptual ideas, which may at times appear disconnected from everyday experience. In a perfect world, students would act as independently motivated and engaged individuals, critically reflecting on, and applying a range of theoretical ideas and concepts themselves. However, experience has shown that students often need a range of support mechanisms to develop a deeper understanding of ideas, and provide confidence in their application (Brew and Manatai 2017; Healey 2005; Malcom 2014). This paper is structured as follows: a reflection upon the experience of introducing a 'blended lecture' structure to the teaching of Cultural Geographies to a cohort of year 2 students at a UK university as a response to timetable and room-booking constraints. It then outlines the methods of delivery and evaluates how this encourages deeper learning amongst students, whilst creating a feedback loop that allows for guided discussion and in-class debate. It will then evaluate the impact on student engagement and the influence on assessment outcomes. Finally, the paper reflects on the impacts of the changes in relation to staff teaching strategies, and how Blended Learning fits with calls for an increase in research intensive teaching.

Literature review

Blended learning has become a focus of much academic attention, as educational practitioners have explored new ways of engaging students and improving the quality of student performance (Hinterberger 2004). By combining traditional methods of delivery, such as face-to-face instruction with support from technological innovations - ranging from podcasts, through interactive online tests to online lectures and project work, new ways of facilitating student engagement, and challenging different pedagogical goals have been created. Often a mix of classroom work and self-guided study these approaches have been regarded as a way of fostering a culture of independent critical enquiry and peer-assisted learning amongst students (Hinterberger et al 2004; Moore and Gilmartin 2010). As new technology has developed over the past two decades, and universities have

invested in interactive electronic learning environments, technology-mediated learning support at a number of levels has become a norm for most courses.

Much has been written in recent years about the impact that blended learning has had on student performance, highlighting the benefits that more flexible approaches to delivery have on student satisfaction, and a perceived improvement in feedback (Collopy and Arnold 2009; Mitchell and Forer 2010; Owston et al 2006; Owston et al 2013). However, one issue that needs further investigation, and is often underplayed in the literature, is the way in which blended approaches to learning can facilitate ways of overcoming institutional constraints caused by increased student numbers, such as congested timetabling and a desire to reduce repeat teaching, something alluded to recently by Martin et al (2017) in the context of teaching in Australia. Further, although attention has been paid to concerns over the investment in a robust IT infrastructure (Moskal et al 2013), the disjuncture between capital investment and the time needed to construct modern, flexible learning spaces, allied to wider sectoral demands to introduce more high-quality research-intensive teaching, means that blended teaching is becoming an ever more important part of the lecturer's repertoire.

In practical terms, blended delivery provides a mechanism by which teaching staff can overcome institutional constraints by 'creating' more space in the timetable and making more proactive use of the available teaching space. However, in the context of the case outlined in this paper, this meant that the course team needed to carefully consider the impact that this would have on both the content of the material delivered and the ways in which a change in delivery could alter the dynamic of how the material was received. The most important decision, and the one the formed the foundation of the changes was pedagogical rather than practical: how could we increase the level and quality of student engagement with the material, and improve their critical thinking skills? Rather than a merely practical response, there needed to be a clear educational rationale to all the changes made.

Case Study: A year 2 Optional Module on Cultural Geography

The case study for this paper concerns the changes made to a long-standing second-year optional module in Cultural Geography, which aims to provide students with a theoretical and thematic grounding in the sub-discipline. This 10 credit worth of module forms part of a suite of year 2

optional modules open to students taking B.A. and B.Sc. degrees in Geography at a UK redbrick university. This module was originally delivered by a team of two experienced fulltime lecturers over an 11 week semester through a series of traditional, 2 hour lectures to a group of over 80 students. It is assessed by examination, and the module had consistently scored well in student module feedback for content and delivery. However, for the 2015/16 session there was a need to reconfigure the module as part of wider, ongoing curriculum reforms and changes to module contact time implemented by the university. This afforded an opportunity to address both past student feedback requesting an increase in seminar-style interaction, and to provide wider opportunities for formative feedback. This presented, however, a challenge, not for purely pedagogical reasons, but also from a practical point of view.

Like many ~~research-intensive~~ institutions there are a wide range of constraints that the academic has to work with. Firstly, timetabling often restricts the amount of available time available for each module, meaning that contact time is particularly at a premium. Secondly, there is a finite amount of teaching space, which has not kept pace with the increase in students and increase of teaching contact hours. This space is often dated, initially constructed in the post-war era of university expansion, and not always suitable for small-group work, and the capital investment and the work needed to replace it is lengthy. This means that innovative ways of increasing contact needed to be sought. For the module under discussion it was decided to introduce 'blended lectures' to facilitate and reorient an increase in content. We define 'blended lectures' as a mix of pre-recorded lectures supported with PowerPoint slides, the guided reading of key papers, supported with in-class discussion and the use of a workshop session in which ideas and concepts are applied to a case study. In practice, this required module staff to pre-record *n* lectures/upload these lectures with new course seminar materials, etc., etc. This reorientation also presented the possibility to introduce new formative opportunities to challenge and evaluate student understanding.

The decision to pre-record the lecture material was primarily a practical response to the institutional time pressures the course team experienced, from multiple directions. The university has a finite number of teaching slots, and thus increasing 'in-the-room' time is not an option. Likewise, the combined time pressures of teaching, research and administration means that any increase in student contact needs to be balanced out against other work commitments. Pre-recording the lectures could be spread out over the summer teaching recess, reducing its initial time

impact. Once recorded this archived material could then be amended and altered as and when needed over future iterations of the module. It further allowed time for the team to prepare the material for the in-class sessions.

A key concern for the lecture team was managing the dynamics of small-group work in a large cohort and within the space of a traditional lecture room. In an ideal situation, there would be ample time to see the cohort in small groups, in a room that enabled students to work in clusters over numerous sessions. However, reality rarely meets the ideal, and so the situation requires careful management. At the risk of the sessions becoming stilted, as the lecturer moves between groups, a focus for each discussion is needed to keep the students engaged. Likewise, regular moments to pause, comment or feedback to the larger group are needed. As Healey *et al* (1996, p. 168) note, 'simply putting students in groups and telling them to work together does not automatically lead to these benefits [higher achievement, positive student relationships]. The learning situations have to be carefully structured'.

This module teaches a range of topics in Cultural Geography, from the sub-discipline's historiography, through to issues of landscape, memory, power, time, gender and modernity. Lectures that had previously been delivered in a traditional lecture theatre setting, and later provided as an online podcast, were replaced and in places re-written. The taught components of the module were pre-recorded ahead of the classroom sessions, taking the form of the lecturer speaking to the PowerPoint slides. These were in the format of a traditional lecture, with a pause in content every 20 minutes. However, due to the lack of an audience feedback dynamic, these were on average a half hour shorter than a traditional 2 hour face-to-face session. The recordings and PowerPoint slides were posted on the institution's VLE, allowing the students to watch and re-watch the material in advance. The module team expected the students to watch the lectures at a time convenient to them and to reflect on key ideas before engaging with the seminar material. This flexibility of engagement would allow students of varying abilities to engage with the content at their own pace, and afford the opportunity to revisit material as many times as they like. More importantly, blended lectures would do more than simply mix traditional and online content, but would encourage students to develop independent deep learning strategies to reinforce their understanding of the subject (Hinterberger *et al* 2004; Moore and Gilmartin 2010; Kanard 2013, Graham *et al* 2017). By providing all study material a minimum of 5 days in advance of the session,

students were also afforded plenty of opportunity to engage with the module team during drop-in sessions if required.

In addition to the pre-recorded lectures, the students were also required to have read a related academic paper before the classroom session. The article provided the focus for a structured seminar replacing the conventional lecture with a 'flipped' format (Rowley and Green 2015). The first half of the seminar session required students, in small groups of 6 to 8 students, to consider a set of pre-set key questions raised by the paper. An informal discussion then followed with each group asked to report back to the wider cohort. This proved an effective delivery mechanism on a number of levels. Firstly, it allowed time for the lecturer to move between the groups to answer queries and ask questions to challenge student understanding, providing instantaneous formative feedback. Secondly, it provided an extra level of formative feedback as the groups listened and responded to the other group's points.

In the second half of the classroom session, the key themes and concepts identified in the first half were then utilised to interpret a chosen case study, often a piece of video, which illustrated the lecture themes, again with structured questions and discussion. This has the benefit of reinforcing the student's understanding, allowing them to try applying theoretical positions to real life examples and discuss the understandings they may generate.

Although the result is the doubling of content delivered in the module, the benefits are wider than merely an increase in academic material. This was also a pedagogic response to allow students more time to engage with the lecture material, and to allow the student to develop their critical thinking skills. However, as a teaching team we need to make a number of decisions in advance about the ways in which we are going to deliver the in-class workshop material. Central to this were the techniques needed to overcome the restrictions placed upon us by the allocated teaching space, and ways in which small-group work could be fostered without the dynamic in the room becoming forced or stilted. Although some of this could be planned, we needed to make sure that there was a certain amount of adaptability to cater for the nature of the students taught. In this case, we needed to adopt a delivery strategy that fostered small group work in a teaching space that was not spatially designed for such interaction. Although timetabling a space for a group of 80 students was not a problem, the quality and nature of the teaching spaces was an issue.

Evaluation of the module: feedback forms; focus groups

To evaluate the impact of introducing a blended delivery format to the module and student's reactions to the work expectations three different ways we drew upon three different methods of feedback over two cycles of delivery:

- Firstly, we used the university's standard module feedback forms. This had been used in past iterations of the module before the delivery change and would provide a comparative to the module before the implementation of blended lectures.
- Secondly, we issued students with an additional bespoke form at the same time which asked specific questions about the students' experience of using pre-recorded lectures, preparative material and of attending the workshops.
- Finally, follow-up focus groups were held by a neutral party after the examination was taken. The cohort was invited to participate in focus group sessions to discuss the new delivery format. From the volunteers two groups were created – one that had attended 80%+ of workshops and one that had attended 20% or less- which were then invited to discuss whether they felt their engagement had influenced their exam preparation. Each session lasted an hour, and allowed students to reflect on the impact the blended format had had on their performance post exam.

By triangulating these different evaluations, we hoped to gain a greater depth of understanding about: how the students engaged with the change in delivery styles; the perceived increase in workload; the level of engagement with the wider course material. Further, the focus group aimed to provide a qualitative element to examine if there were any links between the level of engagement with the recordings, workshop attendance and exam performance.

In the first iteration of the revised module the allocated room was a traditional, single level lecture theatre with fixed benches and seating, which was full to capacity. This made putting students in to small groups difficult, and may well have discouraged students to attend all the sessions. As one respondent in the focus groups following the first iteration of delivery notes, '[the] setting was quite difficult with people sitting on tables and getting chairs, it was hard to write notes', whilst another

commented that the room was, 'Timetabled for a lecture...' and as such '…was awful for discussion… needing space for flipcharts and a roundtable format.'

In the second iteration of the module, the room allocated was an improvement, although again, had fixed desks, restricting the ability to easily put students in to small groups. This experience echoes that of Graham *et al* (2017), who reflecting upon lecture flipping at an Australian university argue that, '…teaching spaces appropriate to your class size, course materials and learners' needs is one of the most critical pragmatic considerations for a flipped classroom approach…', but are the hardest to obtain due a dominance in most institutions of traditional teaching spaces, and timetable competition to access the more flexible spaces available.

Pedagogically, whilst providing a structured depth of engagement with key concepts, the blended method of delivery importantly provided students with a safe, non-judgemental environment where they could try out ideas with their peers via face-to-face interaction in small groups, and more formally through presenting to the wider group. This allowed them to build confidence in their abilities, and as a consequence a number of students commented that they began to make connections between themes and topics across the module, producing a deep level of understanding. In the original lecture-based format for the module, students in-class performance was predominantly restricted to the group being asked to respond to questions from the lecturer during the lecture itself. This was either met with reticence, engaged with by a small cadre of confident students or relied on the lecturer selecting respondents at random - none of which was satisfactory. The blended format provided a less confrontational arena that allowed a more diverse range of students with different levels of confidence to discuss and debate ideas. In the first iteration of teaching we asked groups to present feedback to the rest of the group formally from the front of the room. This was unpopular, as one focus group respondent noted, 'some people didn't like it and felt thrust up to the front'. As the module developed a more informal system of groups feeding back from the floor developed, which garnered more positive reactions. Feedback from the second iteration highlighted how the '…discussion brought to light ideas that I previously would not have thought of', whilst another student noted that the sessions were '…extremely helpful both as motivation to engage in wider reading and a chance to discuss things to get different perspectives and a greater understanding'.

The change in dynamic that required students to prepare material in advance, rather than engage with it post-lecture meant that students became increasingly confident with the material. As the student feedback for the second iteration of teaching showed, 'The fact the lectures and reading had to be done in preparation for the workshop meant that the time within the workshop could be used to gain a broader understanding of the topic,' whilst another added that the format 'Gave a wider understanding of the topic and now feel more prepared for the exam, being able to draw upon wider material and ideas.' This supports Brook and Beauchamp's (2013, p. 20) assertion that blended learning, 'potentially offers many advantages for both students and lecturers as it provides greater flexibility and responsiveness, can overcome limitations of time and space, and can support novel ways to learn…'

Aspiration

Following the insights of Kanard (2013), who provides a comprehensive overview of the use and impact of recorded lectures, it was hoped that use of a blended delivery would improve the cohort's overall exam performance, due to the students being more secure in their abilities to deploy their critical understanding of the subject matter. Notwithstanding, blended delivery also presented challenges and raised a number of pedagogical concerns. A key concern with making the lectures available in advance was an anticipated decline in attendance by those who did not perceive value in attending the seminar sessions or felt that the pre-recorded lectures could be viewed at a later date as part of exam preparation. All optional modules on this degree programme do not stipulate that attendance is compulsory, although there are a few points during the semester when all courses undertake compulsory attendance monitoring. Beyond this the module team believed that the students needed to take personal responsibility for their engagement with course sessions and materials. Even with this in mind, there was a concern that some students would over-rely on the recordings rather than engaging with the breadth of module material. These concerns were borne out at times by the level of attendance. In the first year of implementing blended delivery the module had 80 students registered, but the average attendance for the seminar sessions was in the mid-20s. In its second year of delivery, the cohort was again around 80, but the average attendance was around the mid-40s. Although, this could be in part explained by an unpopular early morning slot, on a day after a regular university student social evening, the level of attendance still surprised the module team, there were other reasons for non-attendance. However, this matches the experience of a number of studies, which recorded a decline in attendance compared to live sessions

(Brook and Beauchamp 2015; Kanard 2013). It does raise issues going forward about the nature of module evaluation at both a course level, and how this fits into the wider evaluation context of both the National Student Survey (NSS) and a subject level TEF, with a perceived tension between traditional lectures seen as 'value for money' and broadening of online material to support innovative delivery.

Redesigning course material to try to circumvent institutional constraints, however, can have unintended impacts elsewhere, especially around some of the 'softer', qualitative elements of teaching. A previously unconsidered issue that emerged after the first iteration of the redesigned module was a change in the delivery dynamics of the lectures. As the course material was prepared in advance of the session, by staff members talking to the PowerPoint slides in their offices, it was found that the vitality and performative qualities engendered by presenting to a room of students were diminished. A lack of spontaneity and immediate visual feedback when gauging understanding may have made the delivery seem dry to some. Although students were able to pause, rewind and revisit things that they may not have fully understood, this may have detracted from the student's engagement with the recordings and wider material.

Another impact, is the perceived increase in work from the student. This can be seen in both a positive and negative light in the feedback. For some, the need to prepare ahead of the workshop sessions provided an incentive to engage with the material in way that they may not have done in other, lecture-based modules. As one student noted the format, 'Forces us to engage with the reading outside of the lectures', whilst another noted that under a conventional lecture structure they would be '…be less motivated to carry out further reading and engage less with the course content.' A sentiment echoed in a number of responses. However, others found the level of work required in preparation a challenge, and a detriment to attendance. In one focus group, a student remarked that it was sometimes '…hard to get it all done (reading and listening to lectures) especially when expected to engage, so if you haven't done the work you are really unlikely to go.' This is echoed by another student who remarked that, 'If you haven't done reading no point being there.'

Is there a connection between engagement and performance?

It is always difficult to evaluate the impact of a teaching intervention after a short period of implementation. However, one clear measure of the impact of blended lectures can be seen in the metric examination of exam performance. The institutional VLE used allows the instructor to examine a range of statistics as to who accesses the online lectures, when, how often they do so, and for how long. It also enabled the team to observe engagement during the semester's teaching period, and the two week period immediately before the exam to give a broad sense of when and how students accessed the material (cf. Owston *et al*., 2013). This was then compared with student responses in a focus group and feedback form specifically designed to address the blended delivery.

Observations

For both iterations of the delivery we identified the 20 students who engaged most fully with the lecture videos by the number of minutes watched at the end of S2. Out of these students, those that attended 80% or more of the seminar sessions were noted (12 out of 20 in year 1; 25 out of 50 in year 2). The exam performance of each cohort was then compared to attendance of the workshop sessions.

More than two thirds of those that watched the pre-recorded lectures for the longest amount of time, were also amongst the most regular attendees of the seminar sessions. For both iterations of the module, nearly all these students scored 66% and above for each exam answer, with half the students scoring marks greater than 70% on at least one question. This raises an issue that is difficult to tease out from the data, whether this merely indicates that the more engaged students are by their nature those that perform better, reinforcing their higher scores, and that those less engaged are the opposite? This suggests that having time to engage with and reflect upon the lecture, along with developing a deeper level of engagement through the readings, discussions and worked examples gave the students greater opportunity to become more critically engaged in the subject matter. In contrast to this, the outcomes for those that only engaged in watching the online videos, and who attended 20% or less of seminars was very different. The average mark was 58% for those in the first year of delivery. This reflects a lower depth of critical engagement with the course material. For some, their engagement with the recorded material was in the three-week period immediately before the exam. ~~This raises an issue that is difficult to tease out from the data, whether this merely indicates that the more engaged students are by their nature those that perform better, reinforcing their higher scores, and that those less engaged are the opposite?~~

However, a rough metric evaluation matches the comments made by students made in the focus groups following the exam. For those that attended most sessions, they noted that, '…although it felt like a lot of work, it was worth it, and was a massive advantage going into the exam.' One student observed that 'it made it easier to move beyond the lecture material in the exam' enabling them to engage with the exam questions in a more critical and reflective manner.

Positive Comments	***Negative Comments***
How much of the course content did you engage with?	
'Did all the wider reading and watched the videos, but the seminars were a bit scary.'	'I listened to all the lectures, but not all the way through.'
'All of it and felt the seminars helped challenge your ideas.'	Hard to get it all done (reading and listening to language) especially when expected to engage so if haven't done work you are really unlikely to go.
How do the pre-recorded lectures rate against attending a live lecture?	
'Easier to make comprehensive notes'	'I get easily distracted at home and often forgot to watch the lectures'
'Panopto allowed you to focus, you could pause and make notes'	'Less motivating'
What aspects of the seminars did you like?	
'Makes you feel like you are discussing ideas properly'	'The way people reported back was at times awkward and repetitive'
'You had a better interaction with the staff and it forces you to engage with the ideas.'	
'talking and hearing – wider sense of what's being said – not just what's being lectured.'	
How Useful were the workshops for developing your understanding?	
'…it builds on the lecture material and due to talking about it… you remember it more.'	'If you hadn't done the work it was hard to engage'
'It brings more purpose to the lecture…'	
'alternative interpretations of ideas/readings	

could be explored'	

Table 1: Examples of student responses and comments.

As seen in the comments outlined in table 1 the pre-recorded lectures do not necessarily fit with all students' ways of learning. For some the formality of a traditional lecture session allows them to focus and restricts distraction, finding that they lacked motivation or adequate time management skills to engage with the material sufficiently in their own time. However, for others watching the lectures at home, this had the opposite effect. Many appreciated the ability to stop, rewind or revisit elements of the lectures to reflect on key themes. For others, it had the positive effect of encouraging a higher level of engagement. A common view was as follows, 'I would have only come to the lectures and probably not done any reading.'

Reflections on impact of blended delivery in the context of TEF.

Our observations over two years of using blended delivery on this module, along with student comments and feedback, show a set of positives can be taken from this approach to organising teaching. This must be tempered, however, with improvements in delivery and expectation management going forward. There is a certain level of disjuncture between students wanting an increase in content, whilst simultaneously not wanting an increase in personal workload. This is in part due to the perception of lectures as 'proper' contact, where material, which they are paying for with their fees, is delivered to them. By encouraging students to become pro-active participants in how they learn, and to reflect on their own learning strategies goes some way towards developing an ethos where students become increasingly involved in the creation and pedagogical development of content (for a wider discussion of student co-production and creation see Bovill et al 2011; Cook-Sather 2008a; 2008b; 2009; Cook-Sather and Des-Ogugua 2018). However, this is a culture that needs nurturing beyond the level of the individual module, and requires an engagement with students from the start of the degree programme to elucidate work expectations. Moving students away from feeling as though they are educational consumers, to develop a clear understanding of active learning practices, over time may help to build towards a curriculum that aligns itself more fully to the wider pedagogic ambitions of the TEF. More importantly it helps develop students who are best placed to take ownership of their own learning strategies.

With a wider range of pressures on student time, such as balancing study and work, students like the flexibility of access to the pre-recorded lectures on a VLE, allowing them to listen and make notes at their own pace. For those attending the seminars regularly, this enabled them to be proactive in targeting reading around the topic areas. A significant number, however, preferred the spontaneity of traditional face-to face lectures and only really engaged with the recordings as exams approached. As a theoretically driven course, the seminars encouraged the students to explore and debate ideas, and provided a context for them to apply these to practical examples. For those that regularly attended, this fostered debate and wider thought. However, for many the prospect of speaking in front of other students was onerous and even intimidating. This had the consequence of a number of students missing the chance to synthesise and apply ideas to a range of material. Debate and discussion in the flipped sessions allowed the students to reflect on the ideas of others

and to receive constant feedback and challenge from staff. These deeper, critically develop and more nuanced understandings were those that we sought in the examinations.

Conclusion

This study has shown that blended learning provides an opportunity for those currently working in fast-changing sector to create innovative responses to institutional constraints on space and time. In doing so, it can allow a change in pedagogic engagement which encourages students to proactively develop and hone their critical thinking skills in an applied way. However, underlying this is a tension between student's perceptions of contact and workload that requires a wider change in learning culture. A consideration of this may prove timely. In the UK University sector, as elsewhere in the HE world, the role and nature of teaching is increasingly becoming a focus of Government attention. On the back of the Stern Review of the Research Excellence Framework (REF) (2016), a greater emphasis is being placed on the need to link the impact of research to that of teaching, stressing the intertwined nature of the two processes. A key recommendation of the report is a call for universities to align the REF and the TEF, emphasising that '…research leading to major impacts on curricula and /or pedagogy within or across disciplines should be included' (2016, p. 23). As universities engage with the remit of the Teaching Excellence Framework, they are beginning a process of re-evaluating their pedagogical strategies in line with an increasing focus on Research Intensive Teaching. As a central tenet of the next iterations of the process (TEF 3 and 4) greater focus will be placed on individual academic departments to emphasise how they embed critical and reflective research-informed and research-based pedagogies as part of a wider strategy to develop Research Intensive Teaching focused curricula.

Pressure on developing increased points of Research Intensive Teaching, from an institutional point of view, means that staff need to adopt innovative methods to deliver high quality academic content. Staff and senior managers alike need to acknowledge the challenges this poses in the face of institutional lags regarding investment in, and the building or refurbishment of, suitable flexible spaces, the implementation of appropriate and robust teaching technologies and pressures on timetabling caused by both increased content and large groups at key stages of the curriculum. The ability of change how a module is delivered is a crucial component in meeting these new demands. This paper illustrates the pragmatism needed to meet these demands, whilst aiming to produce motivated, critically engaged learners, able to fulfil the role of undergraduate researchers. Blended

delivery applied and linked to research focused applications allows one way to do this. However, this comes with some caveats. Developing new delivery strategies takes additional time to create, and as our experience has shown, will take a number of iterations to identify best practice and resolve problems. Further, innovating across multiple modules needs careful thought at the curriculum level to maintain a coherent teaching and assessment strategy.

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