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Watch this Space: On Blended Learning and Music Analysis in the Classroom

ABSTRACT

In an increasingly crowded music educational landscape, music analysis faces numerous challenges. For instance, within UK Higher Education, music analysis jostles with other areas of study for space on the curriculum; growth in student numbers — particularly in the 1990s — render problematic traditional pedagogical methods; and changes to pre-HE education have led to an increase in undergraduates who possess skill sets and knowledge bases that often map obliquely, if at all, onto those required for theory and analysis.

This paper focuses on the opportunities that the twenty-first century provides for blended learning as a tool for delivering music analysis to a generation of students who, broadly speaking, arrive in HE with greater technological than analytical competence. These opportunities include the use of podcasts, on-line tests, flipped classrooms, lecture capture, and collaborative learning spaces, all of which can be used to complement traditional modes of teaching music analysis and lead to a rethinking and re-contextualisation of music analysis pedagogy.

This paper presents a reflective analysis of the author's ongoing implementation of blended learning strategies to enhance the student experience in the delivery of analysis of common-practice music. It will situate this work against the background of pedagogical developments within the author's host institution, the most important of which is the recent installation of collaborative lecture spaces that allow students to present their work immediately for scrutiny by their peers and tutors.

1. INTRODUCTION

My title might seem to imply a direct connection between 'space' and 'classroom'. But one of the purposes of this paper is to reflect on spaces, both virtual and physical, and how they can function as permeable, interconnected sites of learning, and through this to reconsider the forms of student engagement that might take place within them. Here's a second-year undergraduate reflecting on their education experiences this year.

> I wasn't just going to [analysis] lectures to wait to find out what was going to happen — I had to be aware of [content] beforehand. … Off the back of that it affected other modules — once I got in that mindset of having to sit down [and prepare for analysis lectures] for 1.5, 2 hours then I was in the right mindset for other modules.[1]

The student exhibits the qualities of an *active* learner in which learning begins prior to, and extends beyond, the classroom. There are many ways through which one might foster such an engagement; this student's particular road to Damascus came through a blended learning approach.

Educators are increasingly 'tasked to consider how they construct learning environments, and how they perceive students' approaches to learning' (Blair *et al.* 2016, 1466). Technology has been embraced by some as a means of reinvigorating, reconceptualising, or even replacing traditional pedagogical methods. Benefits of technology include the potential for greater flexibility in delivery and in widening participation, as well as helping to meet the expectations of the digital natives of the millennial generation (Milliken and Barnes 2002; Prensky 2001).

Yet as with any tool, the efficacy of technology is limited by its application and degree to which it is fit for purpose (Dron 2006; Bates 2005), and there is evidence to suggest that current students do not yet share their teachers' confidence in the benefits of technology (Kaznowska *et al.* 2011).

When referring to the supporting role played by technologies, blended learning describes the integration and balance of face-to-face and online activities. It provides the opportunity to optimise student engagement, in and out of class settings, not least through a rethinking of contact and individual learning hours (Garrison and Vaughan 2008). It can also facilitate collaboration, both between staff and students as well as in peer-to-peer learning.

At the University of Leeds, my host institution, blended learning and digital modes of delivery have been embedded in student education practices for some years.[2] In 2016 four lecture theatres were refurbished to provide state-of-the-art facilities for collaborative work. These spaces rethought the traditional tiered lecture theatre design, seating students in small pods equipped with touchscreen laptops, microphones, HDMI inputs and so on. The individual laptops were also connected to a dual screen projector, meaning that the class leader could project student group work to the class as a whole (see Morris 2016).

In this paper, I shall introduce my current blended learning practice and — to a lesser extent — the use of these collaborative lecture spaces to support the teaching of music analysis. In doing so, I will touch on broader issues. How do we know on a day-to-day basis when students are engaging and when they are not? How do we know their *level* of engagement outside of the classroom, thereby blurring the boundaries between types of learning spaces? How do we develop active learning habits when contact hours are restricted? Such issues traditionally tend to be highlighted either in class discussions — which are limited in how much they can unearth, especially with large class sizes — or through assessment. Through the use of digital

[1] Second-year undergraduate student, University of Leeds, 2016–17.

[2] As part of this commitment to supporting student education, the university has invested in software platforms, providing the facility to disseminate podcasts, videos, and so on, and from 2014 the ability to create screencasts and instructional videos on their own computers. There have also been structural changes since 2014 many of the teaching spaces on campus have had lecture capture facilities.

technologies, I'll suggest ways in which we might get a deeper insight into learning *habits*, and not just learning *outcomes*.

2. PEDAGOGICAL DESIGN

I shall concentrate my discussion on a second-year undergraduate analysis module at the University of Leeds, MUSS2020 Interpreting Music. At the time of writing, the module is compulsory for students on two of the degree programmes within the School of Music, and optional for the others. The module runs over both semesters; my focus will be on the second semester, which in 2016–17 introduced the students to Schenkerian analysis.

Teaching on the module takes place over the first ten weeks of each semester. The pedagogical design is summarised in Figure 1. There are four phases to the design. In the first phase ('Content Delivery') students were required to watch a number of short video podcasts, each discussing one aspect of the content to be covered. The number and length of these podcasts varied, but on average students had around 42 minutes worth of material to engage with each week. Transcripts of the podcasts enabled supplementary or even alternative forms of accessing the material. Following the podcasts, students moved to the second phase, 'Reinforcement/Discussion', in which on-line multiple choice quizzes (MCQs) allowed students to test their comprehension; these generated instant feedback, often with explanations of answers.

One potential objection to video podcasts is that they do not allow for interaction between tutor and students. To address this, electronic message boards[3] — essentially contained discussion forum spaces — were built into the VLE to allow students to ask questions at any point in the module. There was one dedicated board per week. Contributions to the boards were anonymous — the hope was that it would encourage contributions from shyer students who would not typically contribute to lectures. I would receive an alert on my smartphone when students posted questions, but there was no expectation of an immediate answer; I was able to respond in my own time — though I tried to do so as soon as was convenient.

The next phase, 'Practical Application', sought to put the content into practice. This phase began with students working on exercises posted to the VLE. This activity was preparation for a one-hour workshop in the collaborative lecture spaces; in the workshops, students discussed their preliminary work together at the start of the session and then we collectively compared and critiqued responses in the second half of the session. The session was recorded and available on lecture capture; the software allows students watching the workshop online to focus in on either the lecturer or the material projected onto the whiteboard.

Following the workshop, the final phase allows students to reinforce, and reflect upon, their learning. Here, I provided real-time analyses of the seminar exercises, using Sibelius and desk-top capture software, so that students could see how I approached the work, and could hear me weigh up various alternatives.

This flipped classroom strategy seeks to situate teaching and learning activities across a range of sites, both virtual and physical, and to reframe timetabled contact hours not as the point of delivery of material, but as a space in which students can apply, and evaluate the ideas presented to them, but also conduct analyses in the class setting (Duker *et al.* 2015). However, the efficacy of such a model relies to a greater extent on adequate student engagement before, during and after the class sessions. How, then, might we monitor and understand the nature of student engagement with the various teaching and learning opportunities presented to them? In the discussion that follows, I shall limit my focus to engagement with online resources, drawing on the number of times individual students viewed each podcast; the percentage of each podcast that they viewed (in total); the quantitative and qualitative data from anonymous module questionnaires; and finally, interviews with students after the module concluded.[4]

3. MEASURING STUDENT ENGAGEMENT

61 students were enrolled on MUSS2020 in 2016–17. A module evaluation questionnaire was conducted at the end of the semester, a couple of weeks prior to the submission of the assessment; 51 students completed the questionnaire. In response to statements on the questionnaire, the majority of the students reported that course materials were of a high standard (92 %), though there was less support for the idea that the materials were helpful or led to *better* engagement (54 %). Less than half of the cohort (40 %) agreed that they were 'fully engaged with the module'; the questionnaire format did not allow for greater exploration of responses here. For further information, analytical data drawn from usage of the online materials is required.

Given that the weekly workshops were primarily a space in which students could try out and test their understanding of the material in the podcasts, it is not surprising that they did not see

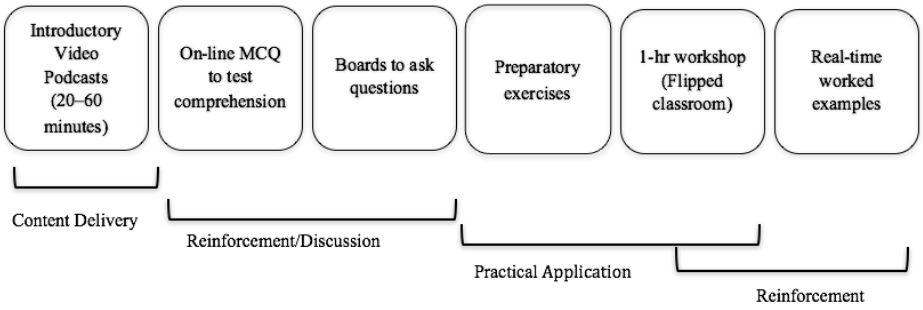

Fig. 1. Weekly Pedagogical design, MUSS2020.

[3] Padlets, see <padlet.com>, accessed 28/06/2023.

[4] The data gathering procedures was approved by the University Ethics committee; interviewees were given an information sheet and signed a consent form.

the lecture capture of the workshop sessions as a significant resource for content or revision. On average, lecture capture materials were viewed by 6 of the 61 registered students per week — incidentally, the literature on lecture capture suggests that students do not typically use recordings to replace the contact; see for instance Davis *et al.* 2009.

More surprising was the degree of engagement with materials delivered after the workshop — during the second 'reinforcement' phase —, including real-time worked analyses of the examples discussed in class — on average, less than half the cohort made use of these — 26.63 viewings on average per week, or just 43.6 % of the cohort. I'll come back to this finding shortly.

Pre-workshop video podcasts, which formed the primary means of delivering content, were viewed on average by around three quarters of the cohort in any given week (76.4 %). Taken week-by-week, however, the data reveal a pronounced dropping off of engagement with video podcasts over the duration of the semester, falling from a high-point in week 2 — each of the podcasts this week being viewed by an average of 55.2 students (90.5 %) — to a low in week 9 — an average of 31.87 students viewing each of the week's podcasts, 52.22 %. It is possible, if unlikely, that students switched from viewing videos to reading the accompanying transcripts, though data from previous years in which there were no transcripts reveal an even more precipitous decline in viewings towards the end of the semester. For this reason, we can be reasonably confident that the figures here accurately reflect student engagement with the pre-workshop content.

Some of the pre-workshop podcasts were explicitly labelled as 'worked examples', in which the theory introduced in previous podcasts were put into practice. It is interesting that there is a small but noticeable drop in viewings of these worked examples — corresponding to a similar lack of engagement with material in the second reinforcement phase described above —, indicating that some students actively selected some types of content over others — average viewings of non-'worked example' podcasts 79.2 % per week, against 76.4 % if worked examples are included.

A similar decline in viewing habits can be seen when considering the percentage *within* each video podcast watched; taking into account all students, an average of 58.03 % of each podcast's duration was viewed by each student — or 62.02 % if we discount the worked example podcasts. These figures are of course depressed by the fact that some students did not watch any of a given podcast. Omitting such non-viewings to take only into account the percentage viewed when the videos were streamed, the data show that when students *did* watch the video, they tended to watch 93.08 % of it. Omitting 'worked examples' from these figures very slightly increases this percentage (93.88 %). It seems that not only did fewer students view the worked examples, but those that did watched a lower percentage of these videos than those that introduced theory.

We thus have a narrative emerging: over the duration of the semester, numbers of students viewing each podcast dropped, though those that did watch them tended to watch most, but not all, of each podcast. This is a considerable advance on previous years — where average viewing percentages of 80 % were more common —, suggesting that when engaged, students were *more* engaged than in previous years. Or, to put it another way, students seemed to be aware in 2016–17 that workshops were the site for experimenting with the theory, and not for being introduced to it.

What sense might we make of these data? There is no correlation between podcast length and number of views — a correlation coefficient of 0.06 —; students did not appear to be put off by the duration of a podcast. But if we take the combined length of each week's podcasts, there is a moderate correlation (0.6) between duration and average number of views. This is, perhaps, to be expected: earlier weeks of the module tended to deliver more material on average than later weeks, and viewing figures declined over the duration of the semester.

When looking at the percentage of each podcast watched against its duration, there is a moderate *negative* correlation — a coefficient of – 0.59 —, suggesting that, here, students did tend to switch off when watching longer podcasts. Given that there is no reason for them to watch all of the podcast in any one go, this implies a conscious decision not to go back to view the remainder, rather than an issue with time constraints.

There exist moderate correlations between the final assessment grade attained by a student and their viewing habits — and certainly a more positive correlation than in previous iterations of the module. The strongest correlation between grades and viewing habits concerns the 'worked examples', both pre- and post-lectures — i.e. in both the 'content delivery' and second 'reinforcement' phases. Those students who engaged with this material tended to perform better than those that didn't: the correlation between grade and viewing habits for students who engaged with all podcasts was 0.59, versus a coefficient of 0.5 between final grades and viewing of pre-workshop, non-worked examples alone. In either case, the correlation remain only moderate, indicating that other factors influenced performance — including, perhaps, the groupwork in the collaborative lecture spaces and the opportunity to discuss ideas on the padlet. Nevertheless, in comparison with previous delivery of the module, there was a clear shift in patterns of behaviour: the pedagogical design adopted in 2016–17 seems to have encouraged a more active engagement with resources, and with a corresponding impact on overall performance.

Qualitative student feedback was divided roughly equally amongst those that enjoyed the format and those that didn't. Five of the 51 respondents reported a preference for an additional hour's lecture either instead of, or in addition to, the podcast. At the same time, few students availed themselves of the possibility to see me for a tutorial outside of the workshop time, despite repeated reminders of this opportunity. There might be a number of reasons behind this — workshops offer greater anonymity and safety in numbers in comparison to tutorials, for instance — but I suspect this is also a reflection of a wide-spread belief amongst students that lectures are in some way the best way to deliver content.

The data give rise to a number of discussion points. In the interests of space, I shall restrict these to two points.

First, the analytics available through video podcasts allow educators to see with some detail when and to what extent students engage with material, in a way that is impossible when, for instance, students are set pre-lecture reading, or when they are sat in traditional lecture theatres. I suspect that the pattern of disengagement across the semester observed in MUSS2020

is replicated in many non-blended modules around the world, and particularly those that build cumulatively.

Such data can also be used to identify those points of the pedagogical design when student attention wavers, allowing educators to adapt what they do at these points in the module.

Second, students frequently report that the preparation for workshops — podcasts, exercises, etc. — is too much. Such complaints should be understood against the amount of time students are expected to devote to private study — made clear in module handbooks — and against the measurable time students spend engaging with materials online. I feel there is work to be done here, exploring the gap between staff expectations of individual learning, and how students actually conduct their private study.

4. CONCLUSION

From October 2018, MUSS2020 will no longer be compulsory for students at Leeds, as part of programme revisions broadening the curriculum. It might be that students who opt for the module will display different patterns of engagement to the rather broad cohort of 2016–17 and of previous years. Any preliminary conclusions drawn from this data must thus acknowledge the nature of these cohorts.

Clearly, blended learning techniques do not necessarily lead to improved student performance. It is a supplement to existing teaching methods, and one that makes a great deal of front-weighted demands on educators to provide resources. So why do it? One reason is that blended learning, combined with collaborative lecture spaces, leads to a *different* type of engagement to that found in traditional chalk-and-talk contexts.

Interviews with students after the conclusion of the module have begun to paint a picture of how MUSS2020 has fostered active learning in certain parts of the student community. Further interviews — and in future, focus groups — should help flesh out this image of what a twenty-first century analysis student might look like.

But I would hope that one of the characteristics of such a student is one that is engaged in and out of the classroom, driven by curiosity and able to reflect critically on their work. Such an attitude was heard time and again in student interviews. I shall conclude with a quote from a student about how their experiences in the flipped classroom has changed their approach. I've italicised the active elements of their learning — the interaction, the evaluation, the discursive quest for knowledge.

> I think that one of the biggest factors in how [flipped classrooms] affected how I think critically is the *interaction* with other students. In a group […] you have to take everyone's work into account and *evaluate* which aspects are the ones you wanted to show [to the rest of the class], which ones we thought, compared to our own, were more 'correct'. I think that the nature of it, discussion-based learning, means that it wasn't just a lecturer standing at the front saying 'this is how you do it', it was 'these are the approaches you are going to want to take' […] it shifts the perspective from 'here's the right answer' to 'here's how you *find* the right answer'.[5]

The transformation described here can of course be fostered in a variety of ways, but certainly from my experience blended learning and flipped classrooms have the capacity to achieve remarkable success in a short space of time.

KEYWORDS

Musical Pedagogy, Blended Learning, Digital Learning, Student Engagement, Technology.

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