

Keeping Everybody Happy? Delivering interdisciplinary teaching and learning on a blended learning module

Polly Wilding and Cathy Coombs

(Research Assistants: Gillian Mooney and Natalie James)



Project Overview

Our Teaching Enhancement Project (TEP) ran through the 2018 calendar year, building on a team-designed module (Power & Conflict – an introduction) which ran for the first time in the 2017-18 session. The research set out to review the success and impact of that module over the long-term, with an evaluation of both the 2017-18 cohort and the success of the module in 2018-19.

Background information on the module

Students at the University of Leeds are given the opportunity to broaden their learning experience beyond the core modules of their programme through selecting modules from one of ten 'discovery themes'. Discovery modules allow students to pursue an area of interest, usually outside of their core subject, to enable them to develop a wider skills and knowledge set.

Starting in the c.2014-15 academic session, a proposal arose for each of the Leeds Discovery themes to have a core module that would introduce ideas and approaches and add greater coherence to the student experience of Discovery. For the Power & Conflict theme, the proposed module was anticipated to make full use of the capabilities of Leeds' Digital Education Service (DES), working alongside subject specialists, to create a suite of resources which students could work through online. The online module would be supported by a weekly seminar (50 minutes) and would be worth 20 credits at level 1.

Modules linked to the Power & Conflict theme run in four of the University's seven faculties, with the ideas addressed in radically different ways across the many schools involved. The challenge for us as a module team was to ensure that the students received a genuinely interdisciplinary experience. The teaching design experience was also an interdisciplinary one with a team of five strand leaders (representing the five sub-themes within the Power and Conflict Discovery theme), each working with academic contributors from the eleven schools and four faculties involved in teaching Power & Conflict. This meant interdisciplinary conversations were a necessity throughout the design process. In turn, each strand leader collaborated closely with DES colleagues in attempting to translate the key ideas we wished to feature in the online resources into an appropriate format and language. These experiences left us, as a module design team, with a number of questions about the success of the process and the teaching resources produced, and it was these questions that formed the foundation of our LITE TEP project.

The module first ran in semester one of the 2017-18 academic year, recruiting c.80 students, from home programmes as varied as physics, economics, accountancy, history, chemistry, languages and geography. Having cost around £100,000 to complete the design and materials, the module's success in terms of recruitment was important in reinforcing the value of this form of investment in teaching design, but we felt there was further space to



review the strategy of producing online modules of this type and suggest possible process improvements.

Project Objectives

Our fundamental aim when starting our LITE TEP was to evaluate the success both of the module as an online interdisciplinary experience for students, and the process by which we had collaboratively produced it. Beyond our particular (and unique!) module, we wanted to examine the way curriculum change had taken place and consider how this might be developed in future. We set out with four broad objectives:

- **To evaluate curriculum change as it happens**, and from that provide signposting for other programme and module leaders seeking to develop similarly blended and/or interdisciplinary modules
- **To explore the effectiveness of interdisciplinary teaching practice**, asking whether blended interdisciplinary environments actually create interdisciplinary students, and how effectively this module models interdisciplinarity
- **To maintain and further our community of interdisciplinary practice**, for research and teaching purposes, through the continuation of the project from design to implementation
- **To conduct robust evaluation and gather a body of evidence** about student experience

Methodology

The central approach to gaining student feedback was through a series of focus groups led by research assistants. Participants were recruited from the seminar groups, but run independently of taught sessions giving a clear 'distance' from the module teaching and assessment. Focus groups, started during semester one and led into more reflective interviews in semester two, following the completion of the module. Despite offering incentives, in both years recruitment of level one students proved challenging, therefore participant numbers were small, but nonetheless the quality of responses produced has been consistent and valuable.

The focus group sessions set out to explore a range of key areas. Broadly, we were interested to discover how far participation in the module had represented an interdisciplinary experience and how effective the strongly blended approach had been in facilitating learning. Within an informal conversational setting, other areas of discussion included the fit of this unusual style of Discovery module into their home degree programme, the developing impact over time and on other modules on their programme, and the skills they considered themselves to have developed. Students were also asked if they felt the module could be improved, allowing for some very direct work to update the materials and teaching.



To supplement the focus groups and interviews conducted, we used some basic learning analytics techniques to assess student engagement with the module and judge where alterations were needed. An online survey was delivered in 2018-19, adding in some quantitative data to the qualitative material from the focus groups. Students' engagement with the resources in Minerva (the University's virtual learning environment) was also examined. The records available from Minerva show the number of students accessing each section of materials, alongside the amount of time spent on them, something that supported the teaching staff's experience of student preparedness for class. This more informal aspect of the review, alongside the departmental module review process, has fed in alongside the formal research findings to changes made ready for the module to run again in 2019-20, as indicated at the end of this section.

We were delighted to see a wide variety of home schools and faculties represented in the student cohorts taking the module in 2017-18 and 2018-19. This was mirrored in those signing up to attend focus groups. However, with a cohort of c.80 students each year, and only a small proportion volunteering for the research, we necessarily need to be cautious about judging representativeness of the research findings. We have also restricted the use of learning analytics techniques to the small and informal review indicated above, given how identifiable student data would be within the sample (with only one student from a BSc Chemistry programme, for instance, or just a couple from an international student background).

Findings

Overview of Power and Conflict: An Introduction

From the combination of research methods discussed above, the following areas of **positive feedback** emerged about the module experience:

- Students consistently reported much **greater confidence in their skills** and in having developed some completely new skills as a result of taking the module. These skills included the use / application of theory, analysis / critical thinking, ability to build an argument, ability to use the university's online systems, time management skills due to independent learning required by the module, and independence in general. Whilst these might fairly be considered to be natural developments within the experience of a level one, semester one student, it was notable that the skills required for and developed by this module were set apart by some students in contrast to those from their home programme, suggesting something extra being offered by this module.
- Students often reported that the issues considered by the module were entirely new to them and felt that their **educational experience had been enriched** through exposure to topics and ideas never touched on during their educational journey before.



- The module produced an **appreciation of there being a range of perspectives** around the issues studied, suggesting some level of reflexivity and perhaps interdisciplinary working, as whilst this theme is clearly part of many Arts, Humanities & Cultures / Social Sciences (hereafter AHC/SS) programmes, that is not necessarily so obviously the case in other students' home faculties.
- Whilst the language of interdisciplinarity was not one mastered by students, they did report some **awareness of different disciplinary styles** being covered and used in the module.
- Encouragingly, many students were confident that the **module had had relevance for their home degree programme**, particularly as a result of an increasing confidence in the use of theory, or the recognition of different perspectives mentioned above.
- More broadly, students observed that the **module had had relevance in their everyday life** as well. Articulated variously, they noted observing the world differently, especially as a result of feeling more critically aware, socially conscious, or accommodating of different views.
- Students were largely positive about the online resources, citing this teaching method as a motive for taking this module. In particular, students with a 'non-typical' learner profile noted the **value of a blended approach**. For instance, mature students returning to education after a career, those with caring responsibilities, or more generally independent learners, appreciated being able to tackle the content in their own way and at their own pace. A blended approach has clear potential as a method for more inclusive teaching practices.
- The longitudinal research process, with follow-up focus groups and interviews in semester two, produced some **increasingly positive reflections from students as they moved on to other modules** and found opportunities to apply what they had learnt.
- Finally, students reported that the level and nature of the material in the module had felt **accessible to all students**, with it not seeming particularly advantageous to come from a certain disciplinary background. This was also related to pitching, with the level of work seeming about right for most, with only an exchange student in the fourth year at their home university feeling the pitching was not ideal for them.

The following points arose as indications of **less favourable feedback from the module experience**:

- Students noted that working in the online environment and through the wide range of relatively short activities involved in a **blended module felt 'less academic'** and enabled them to see the required work as optional, completing less further reading than for other modules. Whilst the students themselves tended to mention this as a positive(!), it raises questions about the extent to which introducing complex



concepts within an online environment really pushes students to cross learning thresholds and reach an appropriate level of understanding.

- A more easily resolvable issue raised in the focus groups was that the **links between the online case studies and what was required for the seminars were not always clear**. Although students reported finding the examples interesting, they were sometimes less certain about what the main 'take-home' points from each section were expected to be, raising questions about the design of the online resources and how well the connections were being flagged in class.
- Likely a linked issue, the research suggested **incomplete engagement with online materials**, with sections being skipped, and little use of the message board function or the interactive aspects. This was partially evident from the focus groups, with students commenting on finding the online materials demanding, but more so from learning analytics and seminar tutor experience of leading discussion, as it became clear that students were taking a patchy or 'optional' approach to the core online materials, instead leaning on the weekly 50-minute seminars as their experience of module work time.
- Some of these attitudes and choices may be explained by some **limitations in the technology used**, as students reported a number of problems that discouraged meaningful engagement. For instance, Minerva does not have the functionality to send email notifications linked to the message board, making students less likely to get involved in a discussion with other students using that forum. Some students also had difficulty with the formatting of Minerva, the 'look' of the programme, or felt unclear about what the role and weighting of the online resources was (one student's comment that the online work should be weighted 50-50 not 70-30 spoke volumes, considering that realistically about 90% of the module material and work was online, with seminars only a back-up). A specific example given regarding limitations of the online environment was the opportunity to 'cheat' on open-text answers as the tutor response would come up pre-submission, rather than requiring the student to make a full and serious attempt of their own first.
- More broadly, although students were positive about the online materials themselves, there was a rather more **ambivalent response to the blended approach**. The most enthusiastic responses regarding the module related to the face-to-face contact time in the seminars and the discussions led by the seminar tutors. This was matched by consistent demand for more contact time and less online material to work through (the 50-50 balance referred to above). Our ability to address this demand has remained restricted in a number of ways. Fundamentally, this is not the point or design of the module; the content is all online, with the seminars performing a supporting role, so those colleagues involved in design could not practicably be drawn in to a longer-term commitment, especially not after the initial significant investment in the online resources. The other issue here is



accessibility; as discussed above, there was very positive feedback received from students with caring or other commitments about the module's flexibility, whilst the aim of an introductory Discovery module was altogether to be inclusive, of all students from all programmes. Increasing the timetabled hours would prevent many Discovery students being able to commit to the module workload and therefore reduce that important diversity and accessibility.

- It became clear across all the focus group discussions that there was a **lack of consistent or conscious engagement with interdisciplinarity**. The research assistants highlighted the difficulties in assessing how students experienced this, though, as this may be more a question of language than engagement; students simply not knowing how to put into words the experience of working with more than one discipline. More discouraging, though, was the example that students fell back on when asked to speak about an approach that had been used in the module, as the only consistently identified discipline was history, on the basis of it using facts and dates, suggesting a limited understanding of the idea of an 'approach'. All of these points need to be balanced with the fact that the students were overwhelmingly at level one, semester one stage, with plenty more time for their exposure to different types of research to allow them to reflect on interdisciplinarity.

Overview of findings from review of similar digital modules

Alongside evaluating the success and student experience of the Power and Conflict module, our TEP also aimed to conduct a broader review of blended learning and teaching design across the university, in the process consolidating community and connections between colleagues working on such modules.

The following reflections emerged from a series of interviews conducted throughout the 24-month research period, during and either side of the LITE-funded project. To maintain complete anonymity the discussion centres around consistent themes rather than specific examples. Our objective with these interviews was to gain an overall sense of the process by which different modules across the university are being produced, how effective and efficient that has been, and any reflections for process improvement that colleagues could offer as a result of their experience. These questions drew on and are blended here with observations that emerged from our own time working to produce the module.

The following areas for consideration emerged during this period of discussion:

- After reflections on the **different challenges involved in the use of Minerva or Futurelearn** we elected to use Minerva with the concomitant emphasis upon internal students. With the potential of Futurelearn to reach a global audience of around five million online learners concerns were raised regarding supporting such large student numbers. However, there was some compromise in terms of functionality with the Minerva software being less intuitive for students.



Most people we spoke to had followed the DES recommendation to use Futurelearn, allowing for the course to be both inward- and outward-facing. For those who did work with Futurelearn, different issues arose. One major one was practical, but also with implications for quality and depth of learning; that Futurelearn could only use open access readings, making reading lists highly restricted compared to what we can offer fee-paying Leeds students via our libraries' journal subscriptions. A consistently noted concern, as a result, was of the possibility of Futurelearn content being a significantly 'watered-down' version of traditional university teaching.

- A second area consistently raised was of the **much more substantial workload involved in producing a 10-20 credit online module** compared to a traditional format. We found that most colleagues would feel discouraged from working on a similar module in future due to this workload issue.
- Part of the challenge in terms of workload lies in the **very different requirements of the online environment**, meaning either substantial re-design of an existing module for the new environment, or original design from scratch to meet the DES specifications. Our own module was a new design. For others adapting existing modules for online learning, they emphasised that design online is *not* just the transfer of an existing face-to-face course into a new environment. One of the challenges in both cases was scope, which was very hard for the subject specialists to judge. We found ourselves, and heard from others, how hard it was to fit in the level of explanation required, or to judge what was appropriate without the immediate feedback normally received in a lecture. The online learning sections are very short, giving academics producing the materials a frustrating sense that they are providing insufficient depth in the coverage of each topic. Equally, the sections are required to adhere rigidly to a set of learning outcomes each time, taking a granular approach to learning outcomes that is also quite different from a traditional course. This requires significant adaptation of approach by subject experts and reorganisation of material.
- Colleagues reported **difficulty in pitching material at an appropriate level**, with some conflict in requirements between the course needing to not require any pre-requisite learning, but still be at degree level. This was found to be a troublesome issue to resolve, one that still came through in final materials in some cases, with students who had relevant background knowledge finding the level simplistic and others without this previous experience barely passing. There remained a tension between the need to explain more thoroughly and not assume knowledge, but the expectation of short attention spans and sections to be brief.
- Similarly, the nature of assessment and activities tightly focused on measurable learning outcomes for each section means that **online teaching design needs to fit a positivist paradigm that clashes with more complex material**. The types of activities offered in the suite of resources on both platforms revolved around short answers or multiple choice question tests to check understanding after each section, with a



broad expectation that a section would deliver immediately testable knowledge. All colleagues in AHC / ESSL subjects reported struggling with this need to squeeze a subject with nuance and no 'right answers' within a system that assumed there must be such clarity as an outcome.

- The online platform, especially the outward-facing environment of Futurelearn, produced **restrictions around values and what topics were deemed acceptable** which were unfamiliar to academics from more traditional teaching methods. The DES has to take a cautious approach in terms of what can be put out publically under the Leeds brand and consequently, several concerns were raised by the DES module designers. Within this module alone, there was a range of material which was deemed to need a content warning attached and several brand names had to be extracted. For example, certain content around protest was only able to included due to it being an internal-facing module. This caution around including anything critical or controversial, a key principle of many concepts in this kind of module, left some colleagues disillusioned.
- A broader but linked issue is the **perceived loss of academic autonomy** when working with online platforms, especially when producing material anticipated to be outward-facing and for a general audience. All materials submitted to DES were not just proofread for sense and typographical errors, but also edited in a more critical way, removing some specific language, cutting back references to theory and the types of deepening connections made which are crucial to stretch students' thinking. Some colleagues were uncomfortable with this process. Alongside often tight timelines and pressure to move forward, many editorial and assessment design decisions had to be made, without the subject matter expertise necessarily being at the forefront.
- **Language and communication difficulties between very different disciplines and working methods** were consistently reported. For our own module, our unusually large team exacerbated some of these challenges, as we were internally interdisciplinary before engaging with the process of translation to DES requirements. Other colleagues had tended to work alone or in much smaller teams. In all cases, the difficulty of understanding one another's use of language and expectations came up between subject and technical experts. The Futurelearn platform in particular has a lexicon all its own, with very different meanings of the words 'course', 'lesson', 'assessment' and 'activity' from their familiar use in university departments. Despite DES colleagues' provision of flow charts to show the required lay-out of an online course, its sections and the timeline for production it was often still not clear from academic colleagues what was needed or when, as learning and activities are something quite different in this environment and need a fundamental level of translation.



- A linked issue was the **differences in working patterns** across the academic year between the subject and technical experts. The term-bound structure of academics' workload and tendency for many colleagues to be off-campus and sometimes abroad during breaks did not fit with the annual work pattern of the DES. Deadlines and scheduling were often difficult to meet due to teaching commitments. In addition significant differences in the types of work contract between those in the DES and for academic colleagues impeded mutual understanding. Academic departments often did not provide workload recognition or value the time their colleagues were investing in this new form of module. The interdisciplinary nature of modules working across faculties or departments also clashed with HR structures, so that tangible reward for this area of work was difficult to secure. For our module, we were fortunate that PGR contributors could be provided with some financial remuneration for their time, but generally the pattern was that only temporary colleagues, PGRs or early career researchers (hereafter ECRs) were enthusiastic about maintaining their involvement and investment of time, seeing this as something tangible for their CV, whilst more senior colleagues worked largely on the basis of their goodwill and commitment to the module.
- The **high quality of DES-led modules requires substantial investment, making the end product inflexible and in some cases unsustainable**. If professionally produced by DSE each module requires a long lead-time, huge staff input and high financial costs with limits on how much creative input the subject experts can have and on the adaptability of the end product. Videos made to this standard cannot quickly or easily be replaced, and the software expertise involved means that academics cannot do their own updates, so that normal adjustments made to traditional modules year-on-year are not possible. As a result, the scripts were often adjusted to limit how quickly the content would go out of date and facilitate re-use on multiple platforms (thus justifying investment), and the modules can easily lose value or usefulness without updates.
- Colleagues involved in producing blended modules spoke of the positive elements of **accessibility and collaborative working with students**. The use of discussion boards could function well as a site for staff-student exchange and support. For certain types of students, the blended approach definitely facilitates wider engagement, escaping timetabling limitations and allowing more students to get involved. This was noted to particularly be the case for students with heavy placement loads and little time on campus, or mature students returning to study alongside work, echoing the feedback of students in our own module focus groups.
- Another **really positive experience reported by colleagues was of designing their own online resources to fit**, working within their own department and answering a clear need for a more 'flipped' approach. This self-led approach clearly has lots of positives, but colleagues emphasised the work involved and the need for



perseverance. Examples were given of using Articulate to create a bank of recorded core lectures and seminars instead of requiring attendance at particular times, or sharing through other tools like desktop capture, uploaded videos, creating quizzes, sharing clips, discussion boards / Padlet, H5P or Sway for timelines and presentations. All of these tools have the potential to provide a self-taught, intuitive route to teaching online, creating your own resources which fit well with the existing course and are then open to regular adaptation. However, these tools are not all easily or freely available at scale, and over time it can be necessary to try out different packages, especially when considering mobile optimisation. The university already provides tools like Yammer, which can be useful for pre-module networking, and Minerva space. Another challenge is training and support, which is not always available, so that this approach requires a definite level of commitment and willingness to experiment.

Recommendations

Following on from the emerging themes above, the points below are possible recommendations for future practice:

- Scheduling and workload issues could be resolved with more **transparency and clear guidance** about what is involved in producing a blended module.
- If production of collaborative blended modules in this way is to be an ongoing priority, departments should provide **more consistent recognition and appreciation** of the workload involved.
- Through dialogue between Futurelearn and the University a resolution should be sought that **allows academics to be able to encourage critical thinking in their students**, online as they would in the classroom.
- A **less rigid and centralised approach** clearly also has value, with more support for colleagues to design and run their own blended or flipped modules within their departments. This would encourage long-term sustainability and for the modules to be **adaptable to changing needs**.
- **Digital champions have an important role to play** in sharing learning technologies to drive this kind of teaching innovation within their departments and support colleagues less confident in experimenting.
- It is important for colleagues to be aware that a **blended / online / flipped approach is not a route to a lower workload**. Planning, teaching preparation, maintenance of message board features and updating materials all creates just as much work and still produces workload pinch-points. Over time, though, the initial investment of time can pay off if designed well for your needs.
- Successful blended module designers and leaders point to the **importance of contact time in some form** with students and the opportunity to collaborate and discuss in



order to help students through challenging material. This may mean retaining weekly seminar time or being committed long-term to working with online-only students via message boards.

- Effective and sustainable resources derive best from **engaging students at the design stage**, especially considering what devices they use for access.
- Module designers need to be aware in advance that **blended teaching materials cannot just replicate an existing module in this different environment**. Having a good overview of how the module functions (from having taught in a traditional way before) can clarify initial design, but designing from scratch has value, avoiding trying blended as an 'add-on' or to squeeze existing content into this environment.

Discussion

The review activities of our LITE TEP period have allowed us to discover some very positive responses to the module Power & Conflict: An introduction. Student recruitment and satisfaction, especially when assessed longitudinally, both seem to be performing strongly. The opportunity to complete such a detailed review has also maximised the value of the initial investment into this particular module, as we have been able, as a team, to make quite significant changes to the module resources and delivery in response to the detailed research findings.

That said, our research findings do not provide an entirely convincing case for the value of this design approach or vindicate our hopes of achieving interdisciplinary learners. Whilst the online approach allowed students to be exposed to a wide array of disciplines, and to work with theoretical lenses and case studies to reinforce a critical approach, it is not clear that the online learning was effective in allowing students to push through learning thresholds and engage meaningfully with the idea of disciplinarity. Both in our research on student experience and discussions with fellow blended learning designers, it was very clear that students value contact time and require discussion with their tutor and peers to deepen understanding and engage with more challenging themes. Even where a flipped or blended approach is effectively used to improve access and inclusivity, we forget the need for conversation and questioning in person at our peril.

More broadly, our discussions have raised doubts about the value of strongly online / blended / flipped modules being led or organised centrally. The workload intensity of producing such modules primarily with the leadership of the DES suggests that this should not be the only approach taken. For our own module, the updates made following evaluation have kept the materials fresh and tightened up the connections and student experience. However, they have become 'out-of-date' in another sense, partly resulting from the structures discussed above that mean the opportunity to work on an innovative module of this type mainly appeals to temporary, PGR or ECR staff. Many of the staff members involved in the design and development have moved on to new roles. The lack of recognition for this kind of work also



meant that we relied heavily on PGRs to produce case studies, so although the online materials still function well and can be run alongside supporting seminars, there is already, going into its third year running, a massive disjuncture between the online resources and student experience in seminars. Perhaps this does not matter, but considering the value identified through this research of access to and contact with colleagues engaged in the research that leads teaching, it must be worth considering whether this is part of a certain unsustainability of this design model.

Some of the most successful blended / flipped module examples we have come across, for AHC/ESSL subjects in particular, have been developed at the local level, using tools that subject experts can work with independently, updating and collaborating with students when appropriate. University resource would be well-used in supporting such programmes and providing basic training / dissemination via Blended Learning Champions into schools.

