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Students enabling TEL innovation: a pilot

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Learning Innovation, Learning and Teaching Solutions

'I was totally out of my comfort zone and it was a challenge – meeting new people, brainstorming, technology (especially presenting at the end!) but I am so pleased I did it. You all made us feel so welcome. Looking forward to the next challenge'

Student participant

'Meeting actual students was fantastic, especially from my own discipline. We must do more of these types of sessions, to inform the direction in which we develop our pedagogy and technology'

Staff participant

Abstract

The Open University has an established, methodology for the pedagogic design and mapping of modules (called OU Learning Design). Rienties and Toetenal (2016) found that module learning design influenced learner satisfaction and academic retention. More recently, curriculum development has been complemented with learner analytics data. These large data sets when combined with Learning Design allows the OU to take a sophisticated, multivariate analytics approach to curriculum development.

The OU's current approach to curriculum development – although student centred – is curriculum-led. This paper discusses the augmentation of functional, curriculum-led, design approaches with student-led approaches designed to enhance the learning experience. Preliminary findings from a collaborative staff–student hack day suggest that the experience provided staff with a deeper empathetic understanding of real-world student experience. New, and more scalable, forms of student engagement in the upstream design and development of curricula are now underway at The Open University.

Introduction

The Open University (OU) has consistently achieved high levels of student satisfaction. However, the 2016 National Student Survey saw a decline in undergraduate student satisfaction for the fourth year, down to 89% (HEFCE, 2016). The reasons for the decline are complex, and in part attributable to a change in UK government policy in 2012. The changes sought to introduce more competition into the higher education sector with institutions increasingly called upon to justify the cost of degrees and students seeking value for money. As a result of the policy change, students studying in England became liable for a greater proportion of their tuition fees than previously.

The OU has a long term commitment to Supported Online Learning (SOL), with 70% of learners working full-time alongside studying. The OU operates across all four nations of the United Kingdom. Students and their tutors are geographically dispersed; communication and collaboration is often asynchronous and mediated by various forms of technology. Curriculum development is centralised, comprising multi-disciplinary teams of academics, educational technologists, and media specialists contributing pedagogic and technical expertise. The Open University has more than 5,000 associate lecturers (ALs) who mark

students' assignments, provide detailed written feedback, run tutorials, and assist students in understanding the module materials. The majority of associate lecturers combine their work as tutors with other academic or industry commitments.

The University's Analytics4Action programme has recently mainstreamed the use of live student and module data to inform interventions to improve student outcomes during a presentation, or during the post-presentation module maintenance processes and subsequent presentations. This data-driven approach is effective, resulting in improvements to student experience, but the qualitative data collected directly from students is essential in enabling the University to effectively verify, understand and interpret the behavioural data available from the Virtual Learning Environment (VLE).

The Teaching Excellence Framework (TEF) is a catalyst to rethink the role of the student in modern Higher Education Institutions. The Higher Education Academy in the selection criteria for the National Teaching Fellowship defined personal excellence as 'evidence of enhancing and transforming the student learning experience' (HEA, 2015). Part of teaching excellence should therefore be the proactive engagement of students in matters relating to their learning experience, beyond assessment outcomes. More recently within the higher education sector, engagement initiatives such as 'students as partners' and 'students as change agents' have emerged.

Students as partners is characterised by active student engagement and collaboration '[...] in which all involved – students, academics, professional services staff, senior managers, students' unions and so on – are actively engaged in and stand to gain from the process of learning and working together. Partnership is essentially a process of engagement, not a product. It is a way of doing things, rather than an outcome in itself.' (Healey et al., 2014)

Students as change agents sees students being actively involved in the change process. In 2015, JISC launched the 'Change Agents' Network' which is a 'highly-active community of staff and students working in partnership to support curriculum enhancement and innovation'. (JISC, 2015)

Within the OU, monitoring mechanisms such as questionnaires and consultations are routinely used (e.g. Student Experience on a Module Survey (SEaM), End of Module Survey, National Student Survey, and the Postgraduate Taught Experience Survey (PTES), among others). Student-led change opportunities exist in the form of representation on committees or Council but students are not typically actively involved in implementing change.

The premise of closer working between staff and students is that each side has something to contribute, e.g. skills development for staff, enhancing learning and teaching, developing skills and competencies in learners to prepare them for future studies and enhance employability.

The potential for production cost savings, by involving students in early decision-making and iterative development, is worthy of exploration. It may appear counterintuitive that investing in early involvement would result in cost savings however, this engagement helps to ensure student needs are met early on in the decision-making process.

Moore's (1993) theory of transactional distance suggests that in online and distance learning contexts, the distance between instructors and learners is not just physical, but cognitive, which can 'lead to communication gaps, a psychological space of potential misunderstandings between the behaviours of instructors and those of the learners' (Moore and Kearsley, 1996, p. 200).

Three dimensions of dialogue, structure and learner autonomy work to reduce transactional distance (Moore, 1993). Firstly, 'dialogue' concerns the frequency and quality of interaction between learner and teacher, extending beyond two-way communication to concern broader interactions. Secondly, 'structure' relates to the rigidity or flexibility of a course of study. Lastly, 'learner autonomy', which is dependent on the former, concerns the degree of self-directedness or independence of the learner. These dimensions might contribute to a large transaction distance and to students' feelings of isolation and disempowerment which can decrease motivation, engagement and ultimately satisfaction. It follows that dissatisfaction may result in reduced learner retention and progression.

While the relationship between student and higher education institution is not a simple one of consumerism, emotions have been shown to affect learning gains (Craig et al., 2004). Our current approaches to module development are curriculum-led, focusing on syllabus, skills development and assessment to fulfil various internal and external quality assurance criteria. As will be discussed later, the approach outlined in this paper sought to augment a user-led approach into the curriculum development process.

Aims and objectives

Rienties and Toeteneel's (2016) research, involving 151 OU learning designs, found that learning design has an influence on learner satisfaction and academic retention. As our understanding of pedagogies has evolved, there has been increased recognition that learning is socially situated (Beetham, 2007; Engeström, 1987) meaning broader environmental factors (e.g. learners' unique context, prior experiences and technology etc.) are likely to contribute to satisfaction and retention.

It can be challenging for practitioners to extrapolate suitable practice from research (Thorpe, 2008) therefore, we need an approach which is more appreciative of the unique context of cohorts of learners to guide practitioners. Arias et al., (2000) argue that a collaborative approach to design reframes problems to reveal new insights. In contrast to traditional knowledge transmission, 'student as producer' reflects socio-constructivist pedagogies where students are engaged in participatory and collaborative activities, and are recognised as being part of a disciplinary community of practice (Lave and Wenger, 1991).

Winn (2015) asserts that 'student as producer' isn't exclusively about involving students in activities; it's more democratic and affords students greater agency, and perhaps is more easily conceptualised as a 'cooperative' endeavour. In this sense, students are engaged in the institutional community of practice and bring with them a unique understanding of the student context which can be applied in a co-operative context, including institutional governance and decision making.

Surveys, consultations and even workshops afford participants limited agency, with little opportunity for them to determine the issues or challenges for discussion. Hack days can bypass this, by virtue of their main purpose: 'How do I hack this problem, and not only suggest a solution, but prototype it?'

Methodology

Although 'hack days' or 'hackathons' did emerge from the technology sector (the term being first used by OpenBSD and Sun Microsystems in 1999), these events are not necessarily for the 'techies', and hacking in this sense refers to exploration rather than coding solutions or undertaking unscrupulous acts.

Hacking is collaboratively tackling a design challenge or solving a problem by stimulating innovative, creative thinking, and using the process to identify issues or opportunities. It encourages non-standard solutions, and the process is as important as its outputs.

In January 2016, we ran a hack day as the conclusion to a three-day academic staff development conference to discuss new innovations in online learning. The first two days of the conference were a mix of presentations and case studies on the topic of 'Designing Online Learning for the Future'.

Because we wanted staff and students to engage in highly productive acts, we invited students within a 30-mile radius of the OU's Milton Keynes campus to participate. The Open University Student Association assisted in this task. The CAMEL email messaging system was used to send email invitations to students who were currently studying; had successfully completed a module in the last year; or registered to study a module; and were in the target geographical area and had previously consented to being contact by the University.

Students were asked to register by completing a Google Form where we asked them for details of current and past modules studied. This enabled us to allocate them to discipline-specific groups on the day.

Students were compensated at a fixed rate for their time and situated as equal 'partners', to encourage boundary-crossing from social roles such as 'academic' or 'student' to one of 'collaborator'. We also wanted staff and students to coalesce in a shared community of practice (Lave and Wenger, 1991) to construct knowledge through participation.

We received 147 expressions of interest from students to participate. While this clearly shows an appetite from the student body to be involved in collaborative and co-creation events, unfortunately, we were only able to randomly select 20 student participants due to the size of the venue. In total 21 staff from across all faculties participated. To assist participants in prototyping their ideas without being concerned with constraints around technical skill or expertise, we had a range of staff with creative, media and software development expertise on hand. This was invaluable in creating artefacts to help the teams explain their design solutions.

Participants were divided into teams based on subject disciplines. It was decided not to ask participants to submit design challenges prior to the event. This meant that staff and students had to negotiate the topic of their design challenge which would address a problem or opportunity around students' experiences of online learning.

The objective for the day was to afford staff and students the opportunity to collaborate on ideas for exploiting technology to enhance, rather than deliver, online learning experiences. The emphasis of the day was very much on supporting disruptive innovation with pedagogy and technology, rather than incremental improvement to existing systems which service current business models.

The four-stage Human Centred Design model (i.e. problem, ideation, creation, implementation) (IDEO, 2015) emphasises that the people facing a particular problem every day hold the keys to solving it, and so it was imperative that students be in the room as partners in identifying the challenges to hack, and contributing to the prototype solutions developed.

Having defined a design challenge, the teams entered the ideation phase which saw them brainstorm a number of possible solutions and seek feedback from another peer in the room.

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The final stage was to refine a chosen idea and create a prototype which would be used to explain the chosen solution to all of the participants at the end of the day in a four-minute 'pitch'.

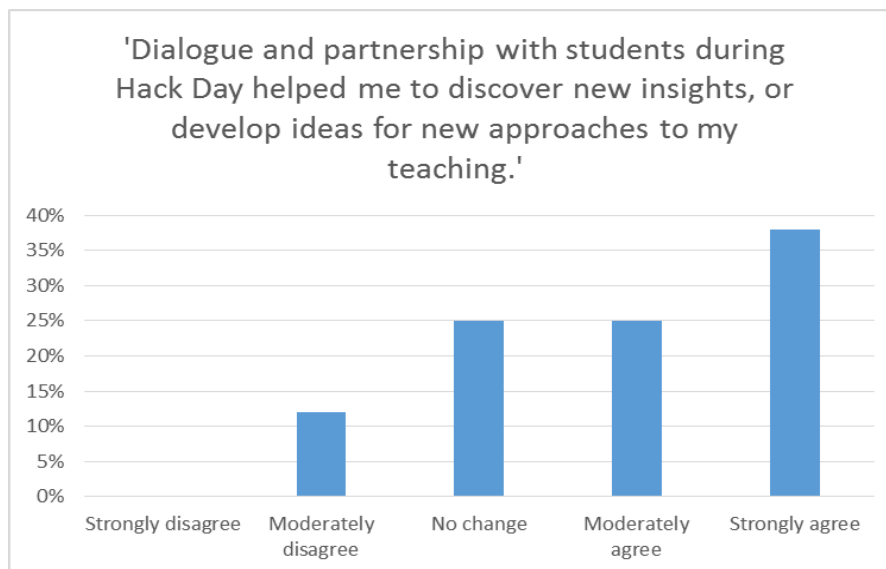
Results

The ideas generated by Hack Day were heavily in favour of student community-building and more in-depth involvement with the OU beyond that of the module level.

At the end of the event, we asked participants to complete an evaluation questionnaire which sought to ascertain ease of engagement, experience, professional development and appetite to attend similar events in the future. Satisfaction, ease of engagement and experience all scored highly on a Likert scale, suggesting there could be scope for engaging students outside of modules and at the wider institutional level.

Of those surveyed, 60% of students and 46% of staff found the day gave them new ideas/perspectives on the effective use of technology enhanced learning. Our evaluation also sought to ascertain whether Hack Day contributed to students' professional development however, questions in this category elicited more 'neutral' responses than in any other category. A greater effort to explain to students how their involvement required team working, communication, negotiation etc. may have remedied this. Engagement in projects over a longer, sustained duration than was possible in this example may make it easier for students to recognise the skills they are acquiring and developing.

A follow up survey was run with staff participants six months after the event, asking a range of questions relating to the ways in which Hack Day had had a long-term impact on their academic practice:



There was an even split in a yes/no response to the question: 'As a result of your participation in Hack Day, are you doing anything different in your teaching practice?'

Some participants further elaborated:

'Drawing on resources I find on Twitter.'

'Asking academic teams for evidence of what they say students want. Emphasising the student perspective.'

Conclusions

From the feedback on the day and the results of the follow up survey, we can see that there is huge potential for this kind of mutual engagement between staff and students to positively influence practice.

However, hack days are not representative of the OU student body, and are not sustainable in terms of resource and cost. We believe that we need to enable students to contribute to institutional projects and activities which have a duration period longer than a day. Such initiatives will also support the development and evidencing of students' professional skills.

Hack Day is having a transformative effect on our emerging engagement strategy. There are a number of examples where students are being engaged upstream in the development of learning tools prior to business cases being drafted. This gives students the opportunity to feed into defining high level requirements, identifying solutions and ensures that the end product better serves their needs.

In terms of curriculum development and learning design, the establishment of the pilot Student Curriculum Design Panel, consisting of just under 500 students, is trialling the involvement of students in a variety of co-creation, user-testing and consultation activities.

Engagement is a plural activity, with varying degrees of scale and agency afforded to students. The pilot Hack Day has shown that more participatory and collaborative engagement activities give practitioners a deeper understanding into the context of learners. This can be useful in challenging commonly held assumptions and identifying priorities that may not otherwise be represented in the institutional discourse.

Involving students in the development of teaching and learning experiences has the potential to reduce the transactional distance between staff and students, improving the learning experience; increase the likelihood of adoption of new tools and methodologies by students and staff; and, importantly, can promote an appetite for innovation in teaching and learning.

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