Linking engagement indicators to supportive interventions

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Abstract

This short paper explores work currently underway at the University of the Highlands and Islands to define, develop and operationalise a set of 'student engagement indicators' and link them to student support interventions. After exploring the institutional context of UHI, and the background to the work-in-hand, the paper summarises progress to date, the evolving rationale for developing a set of student engagement indicators, and immediate next steps.

Introduction

The University of the Highlands and Islands (UHI) is a tertiary, geographically and digitally distributed university that comprises thirteen Academic Partners including FE and HE focused colleges, and specialist research institutes. Within the Highlands and Islands region, the university covers a geographic area that is approximately the size of Belgium and provides local access to Higher Education in geographically dispersed rural locales, and well as within the urban centres in the region. As such, UHI uses a blend of online, digitally enabled and face-to-face approaches to engage with learners, and for learners and staff to engage with one another. Particularly important is the university's model of 'networked delivery" of courses, which allows students within rural and geographically dispersed communities to undertake their studies from their own location. For undergraduates, this can mean undertaking their degree programme from home, their nearest campus, or one of UHI's seventy plus regional study centres, regardless of where within the UHI network their programme is being delivered from. The university are also the largest users of videoconferencing within the Higher Education sector in Europe, and in combination with other online technologies videoconferencing is central to the delivery of UHI's programmes and providing access to lectures, seminars and other synchronous learning opportunities.

Perhaps unsurprisingly, within the above context, the university generates a considerable amount of data relating to learner's engagement within their modules and programmes of study, and relating to other aspects of their interaction with the university. In common with many other higher education institutions, the university is interested in and actively exploring how it can more effectively harness the data that it generates in relation to learner engagement, and also the evaluative data relating to the student experience that is generated through internal feedback mechanisms (for example module feedback surveys) and external mechanisms including the National Student Survey and (equally as important given the tertiary nature of UHI) the Student Satisfaction and Engagement Survey.

Key concerns relating to how the university can more effectively harness the student engagement and experience data it generates include: developing staff and student capabilities in interpreting and acting upon data; linking our interpretation of data to timely interventions and enhancements in learning and teaching, or in meeting wider student support needs; and tracking and evaluating the effectiveness of those interventions. These concerns and objectives are reflected in the areas of activity that the university has prioritised for the current QAA Scotland Enhancement Theme 'Evidence for enhancement: Improving the student experience', and which are encompassed in three distinct but interrelated strands of project activity: linking evidence to learning; linking student representation to enhancement and belonging; and linking feedback to progression.

However the institutional landscape for making more effective use of student engagement and experience data is more complex at UHI than it may be at other institutions, with centralised processes and procedures (e.g. NSS reporting) sitting alongside customised approaches to analysing student engagement within the Academic Partners that constitute the university. To this end a number of the Academic Partners utilise a Blue, Red, Amber, Green tracking and action planning tool to support student retention and attainment, and which is linked to curriculum planning processes and the Personal Academic Tutor (PAT) system in place to provide pastoral support and guidance at individual and class levels.

To further develop institutional capacity in harnessing and utilising the data relating to learning and teaching provision and engagement that is generated at university-wide, academic partner, subject network, and curriculum level, a new short-life working group has recently been formed with a focus on identifying and consolidating means of data generation, dissemination and application. In parallel, and feeding into this group, an initiative is now underway to build upon existing initiatives (e.g. BRAG) to develop a robust set of student-focused 'engagement indicators' that can be adopted across the university.

Identifying an initial set of engagement indicators

A key mechanism within UHI's ongoing internal learning and teaching enhancement activity is the annual SNLQM (Subject Network Leaders/Quality Managers) Forum. The SNLQM Forum utilises the annual Self-Evaluation Documents submitted by Academic Partners and Subject Networks to identify themes for enhancement-focused dialogues, with representative groups of staff and student colleagues then engaging in dialogues to identify key issues, challenges and priorities that are then captured in an outcome report relating to each theme.

During the academic year 2016/17 one of the themes identified related to the broad area of 'attendance monitoring and engagement', with key questions for exploration including:

- What do we think are the key purposes and benefits of attendance monitoring?
- What should be our key measures of student engagement, both on campus, online, and where relevant in other environments where student learning is supported?
- What examples of best practice in monitoring attendance and engagement can we identify? This could include what works well with the BRAG system and whether there is scope to cascade that more widely across the university.
- Learning analytics and making better use of digital data and data generated by interactions with institutional technologies. What would this ideally look like?

As is suggested within the questions above, and as was underlined through the dialogue that supported their exploration, a consensus emerged around the pivotal issue not being that of attendance, but of student engagement and the range of ways in which this is evidenced or captured by the data we generate through current systems mechanisms, and that which could be generated through future systems and mechanisms yet to be developed.

A consensus also emerged around the limited, and limiting, use of learner or 'learning analytics' as a key term of reference. It was felt that this carried connotations that were too strongly biased in relation to 'hard data' generated by interaction with technologies including principally the Virtual Learning Environment, and not sensitive to the wider institutional context with respect to digital tools and spaces, the services students would be expected to engage with, and the range of 'softer' indicators of active in learning and teaching activities.

In this respect 'student engagement indicators' was felt to be a broader, more inclusive description of the direction the university ought to take in extending the available 'data set'

relating to student interaction with the university at expected points of engagement, in their learning and progression, and in wider forms of interaction. While at a much earlier stage of development, this aligned our emergent thinking with that of Perry et al (2016) in their arguing that "engagement analytics goes beyond the data already used in learning analytics (i.e., capturing library and Virtual Learning Environment access, and attendance monitoring)" to also encompass factors that include, but are not limited to, "…a student's engagement with university life, such as being a student rep, volunteering and preparedness for study".

Of the nascent set of student engagement indicators that were identified, these encompassed a range of factors that aligned more with 'conventionally understood' learning analytics as well as the kinds of wider factors alluded to above, and included:

- Attendance at and completion of induction events and activities
- Attendance within class including videoconference classes
- Having logged on to the VLE by an established point early in the semester
- Engagement with a range of online resources and spaces over time
- Having engaged with and made use of the library including online services
- Submission of formal coursework on time
- Having taken opportunities for formative feedback
- Online engagement with peers
- Engagement with Personal Academic Tutor
- Engagement with wider student support provision

While Perry et al (2016) and Sclater et al (2016) are amongst those who identify a much wider range of student engagement indicators and analytics, including referrals and deferrals and extra-curricular activities, subsequent discussions concerning the internal position on student engagement indicators have become focused on why, for what purposes, and for whom we are seeking to develop our analytical processes and capabilities, including the extent to which engagement indicators should be focused on individuals or cohorts.

As we moved into the academic year 2017/18, and returned to the further development of the student engagement indicators through our most recent round of SNLQM dialogues, the questions now being considered in relation to further refinement include:

1. What data pertaining to student engagement (quantitative but also qualitative) is absent from the indicative set of student engagement indicators listed above?
2. With a focus on improving the timeliness and effectiveness of student support at individual and cohort level, what would a corresponding set of engagement 'interventions' comprise or address, and who would act upon them?
3. What would we like to be presented to module and programmes leaders so they can gauge the engagement of their own students at individual and cohort level?
4. What would we seek to present to students so they can gauge their own progress and patterns of engagement, in a supportive and non-judgemental manner?
5. How might some of the above be enabled in the move to a new VLE?

Congruent with the work that is being taken forward through our three aforementioned strands of project activity for the current Enhancement Theme, and reflecting the collaborative and development ethos of that work, a primary concern is with how we finalise and operationalise an approach to student engagement indicators that is negotiated and co-constructed amongst a relevant range of colleagues, principally amongst them our students and student representatives. Harnessing student engagement indicators inclusively and reflexively, to in turn support learner inclusion, empowerment and autonomy, are matters which are now coming to the fore in our current discourse, and we are interested in how

colleagues at other universities have approached the use of learning analytics and engagement indicators for similar purposes (e.g. McPherson and Heggie, 2016).

Linking to supportive interventions

While the task that remains is a complex one, there has been an initial agreement on how and where we will seek to link the kinds of engagement indicators we have identified to a range of interventions to support our students. The priorities at this stage relate to:

- Early identification of students who may be at risk with respect to their initial engagement with the university and their studies, and who may be experiencing challenges around social inclusion and integration, or academic challenges concerning the nature or their chosen programme of studies
- Developing more effective means of gauging and understanding module and programme cohort patterns of engagement in order to: improve student support; identify points of 'disconnect' that reflect issues of curriculum or learning and teaching activity design rather than students being unprepared or unwilling to engage; and inform the future design of learning activities (predicated on the belief that analytics should not just inform educators as to how their students are engaging but should guide educators in better educational practice (Lockyer et al, 2013)
- Supporting the PAT role in working with individual learners, but also class groups, through clearer and more timely provision of student engagement data

Next steps

In parallel with refining and presenting a proposed set of student engagement indictors, and corresponding interventions, to the university for wider review and agreement, it has been agreed that operationalisation of the engagement indicators is contingent on several other developments that present both challenges and opportunities for the work-in-hand. This includes the impending move to a new VLE in the next academic year, with the choice of platform currently under consideration and with analytics functionality an important factor within this context. The work of the short-life data working group is also an important enabler, and in combination the working group, the migration to a new VLE, and the work being taken forward through the 'student engagement indicators' initiative should converge in identifying what configuration or solutions are desirable in relation to an integrated data analytics dashboard, or perhaps a small number of dashboards with dedicated purposes.

There are also links to be explored between the developments described in this short paper, and the development of educational scholarship and research at the university which is an area of current investment and support activity. Given the nature of UHI as a geographically and digitally distributed university, and one within which dimensions of digital education practice are central to current educational research activity, the application of learning analytics and student engagement indicators in research that is focused on better understanding student experiences of blended and online learning is of promise. Particularly so in relation to the insights that may be gained through combining analytics and engagement indicators with qualitative approaches focused on understanding the subjective perceptions, experiences and beliefs of learners studying in blended and online mode.

References

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