



Data connections: a model for responding to student learning needs

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Presentation abstract

The collection, collation and cognition of student learning data has become a well-established part of university central systems; however, stakeholders such as learning developers are not always able to access, interpret and act upon the data. Thus, there is a lost opportunity to leverage the potential to enhance and improve student learning through learning analytics (LA). Current practice often consists of parallel academic silos which have limited learning data connectivity. This evidence is typically optimised for reporting metrics to external regulatory bodies, such as the Office for Students' (OfS) B3 conditions relating to student retention, completion and continuation.

The rich potential within the learning analytics data unlocks new and more timely opportunities for early interventions by learning developers to enhance the course curriculum and increase inclusivity for learners. The seamless integration and collaboration between academic and learning developers creates a coherent and 'wrap-around' range of learning opportunities and support materials that together facilitated an effective progression of learning and achievement. It builds upon the well-established body of research relating to student transitions, which prioritised the importance and value of the early identification of the key characteristics of prior learning experiences and settings.

Learning developers make a significant contribution to the student learning experience, and emerging technologies such as learning analytics (LA) provide the potential for earlier interventions for a broader range of students.

Keywords: learning analytics; student data; early intervention; academic collaboration; student transitions.

Community response

The presentation focused on the key question, 'What if the vast amount of student data universities collect could truly be used to support learners, rather than report on them?' Participants seemed familiar with the reality – higher education has become adept at gathering and reporting learning data for audits and compliance. Dashboards and systems are in place, numbers are meticulously tracked, and reports flow upwards to regulators. However, the story often adjourns when it comes to utilising that data to make a real difference in students' day-to-day learning journeys.

The presentation highlighted this gap. Too often, the people who could act most effectively – learning developers – either do not have access to the data, or do not have the tools to interpret it in ways that inform timely interventions. This results in opportunities lost to identify struggling students early, to design curriculum adjustments, or to provide necessary support that could positively influence retention and success. Rather than letting learning data live in disconnected silos – departmental, administrative, and regulatory universities are encouraged to adopt a more integrated model. The vision painted was of a system where academics and learning developers work side-by-side, pooling insights to build a coherent, learner-centred safety net.

Participants shared their experiences with the barriers they faced: limited access to data, low data literacy among some staff, and entrenched, siloed cultures. Encouragingly, they also shared excitement about what could happen if those barriers were overcome. Empowerment is critical, through equipping learning developers with access to and confidence in using analytics. Creating shared spaces where data-driven insights could lead directly to curriculum redesign and inclusive teaching practices is essential.

What commenced as a critical reflection on the limits of current practice evolved into a call to reimagine learning analytics as a transformative tool – not for compliance, but for compassion. The key takeaway from this session was that, when data is shared, understood, and used collaboratively, it can reshape the student experience as inclusive, responsive and evidence-informed.

Next steps and additional questions

Our next steps are:

- To continue to research the emergent role of LA.
- To survey the LD community to capture the different perceptions of where LDs feed forward into institutional policymaking.
- Andrew is currently working on a scoping literature review of the field for his doctoral studies.

Authors' reflection

Our presentation focused on a set of nursing students, and we demonstrated how it may be possible, with institutional policies in place, to run the algorithms that would create a meaningful solution for a hard-pressed lecturer. Our example was a large group of 441 Nursing students, and by talking through the different data sets available in the typical institution we were able to narrow the focus for the lecturer to the nine students that most needed support – an evidence-based approach.

Demonstrating the significant potential and positive impact of adopting a learner-centric approach to learning analytics within higher education should, in our view, provide a convincing case for institutional leaders. Yet, the financial pressures currently faced by universities, combined with growing external scrutiny and its demand for homogenised datasets, have meant that the dominant lens on learning analytics often serves institutional accountability rather than genuine student development. Within this context, attendance monitoring has become a common tool for analysing and reporting engagement, frequently treated as a primary component of the learning analytics dataset.

While such measures may offer institutions an efficient mechanism to evidence student presence, we question whether they capture anything more than a superficial marker of engagement. Attendance might signal an *intention to learn*, but it does not demonstrate that meaningful learning has occurred. From a reflective standpoint, we believe that if learning analytics are to become truly mature and impactful, they must move beyond institutional compliance and attendance records towards systems that actively monitor, measure, and, most importantly, support authentic learning and demonstrable learning gain.

We conclude that third space professionals, as we broadly term the LD community, are pivotal in assisting students in their learning journeys, and that they are essential stakeholders in contributing to institutional debates and policies as learner analytics develop.

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Further reading

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Author details

Andrew Kitchenham is the Deputy Head of the Department of Creative Technologies at Bournemouth University. His doctoral students are focusing on developing a transferable and accessible model for a student-centred approach to learning. His learner analytics process chain has been presented internationally, and he advocates linking the findings of his model to personalised data storytelling conversations that engage, motivate and facilitate the learner to undertake positive reactions to communication, discussion and feedback.

Debbie Holley is Professor of Learning Innovation in the Faculty of Health and Social Science at Bournemouth University, a National Teaching Fellow, and Principal Fellow of AdvanceHE, recognised for her strategic leadership in technology-enhanced learning. She holds Senior CMALT accreditation from the Association for Learning Technology in recognition of her sector-leading contributions. Her research interests include digital transformation in higher education, the shift to online learning during Covid-19, and the use of virtual worlds for teaching. Her recent publications span learning analytics, healthcare innovation, and methodological approaches to complexity.

David Biggins (Bournemouth University) is a recognised thought leader in technology-enhanced learning, specialising in learning analytics, data visualisation and reporting. His research focuses on how digital tools and data-driven insights can improve teaching, learning, and student success. His work has influenced educational practice and policy nationally and internationally, establishing him as a trusted voice in the field. Passionate about equity and inclusion, David ensures that technology supports all learners in reaching their potential.

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