Case Study A: Gauging Student Engagement in a Blended Programme

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Module discipline: Foundation of Education
Approximate module size: 350 students
Level of module: First year Professional Master of Education

Reasons for using analytics in the module

The Professional Master in Education Primary (PMEP) is a two-year blended education programme that prepares students to become primary school teachers. The online asynchronous components of the programme are delivered using the Moodle Learning Management system (LMS). The programme attracts a large number of students per cohort, making it imperative to have robust measures in place to ensure that students who are struggling are identified early and given the support they need.

The first module students complete as part of the PMEP programme is Foundations of Education, a large module focusing on the psychology, philosophy, history and sociology of education. The assessment for the module draws on all four strands and requires students to have engaged diligently and consistently from the start of the programme in order to perform well. A significant aspect of the work for the module involves completing weekly tasks and activities in the Moodle learning management system (LMS). Tasks include watching presentations and videos, discussing questions on the forum, answering quiz questions, writing reflections and participating in live webinars.

The programme team was interested in monitoring students' participation in these activities with a view to identifying students who were not engaging to the required level and might require additional supports. We put in place procedures outlining how engagement data should be used and the follow-up steps that we should take to communicate informally with students regarding their engagement levels. High engagers would receive an e-mail congratulating them on their work and encouraging them to maintain their efforts, while low engagers would receive an e-mail informing them that they were not engaging at the required level, advising them that they needed to play a more active role in their studies and offering support in the event that they were experiencing difficulties.

We were aware that Moodle has some built-in tools that makes it possible to see of record of what students were interacting with, which would allow us to compare individual students with the class in general. So we wanted to use that data to identify students who were not engaging as required.

Data sources/modelling approach

We extracted the Moodle logs for the relevant courses into Excel and followed the instructions in Extracting and analysing course logs.pdf to get a picture of overall and individual student engagement levels. From this we estimated the average level of engagement and e-mailed all students who fell below that average.
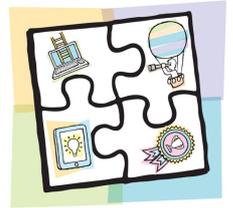
Case Studies of Data Use in Module Design/Delivery

Impact of using data

We received a very positive response from the high engagers who greatly appreciated having their efforts officially noted. The e-mails also had a positive impact on the low engagers. We found that 37% of the low engagers increased their activity following receipt of the e-mail. The average increase was 281%. We are conducting ongoing research to determine whether this increased engagement is maintained and whether it is associated with improved performance in assessments.

Gathering further data

One of the things we looked at in the Moodle data was the level of student engagement over time. We found that there was a drop-off in engagement overall as the module progressed. We are currently investigating changes to the structure of the module – such as awarding credit for forum participation and aligning tasks more closely with the summative assessment – that we hope will help to address this.

Advice for colleagues interested in using a data-enhanced approach

We found that just looking at the data and getting a feel for it gave us a whole new insight into what our module was like from a student perspective. It took a while to understand what we were looking at, but once we did it was actually very easy. If you or a colleague can use Excel at all, you really don't need to be doing anything complicated – just a basic bar chart can really tell you quite a lot about what is going on.