Learning analytics with iLearn Insights

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iLearn Insights is an innovative online application to address the challenge of engaging, motivating and supporting students with automated personalised email for those at risk of failure. It allows academics to identify students who are engaging or otherwise with the Learning Management System (LMS) content, thus allowing early intervention, and ultimately improved retention in units by providing targeted support to a student cohort. In contrast to systems that provide only static data reports, this vendor-independent innovation was built in-house to analyse and visualise student learning data in relation to access patterns, forum activity, learning activity submission and grades to identify a student cohort that needs support, as well as enabling teaching staff to send personalised emails to students on the basis of their level of engagement and/or performance.

Feedback has a powerful impact on learning, but students frequently highlight it as an area that can be improved in tertiary education (Dawson and Henderson, 2019). iLearn Insights provides graphical representation of LMS data that enables visual personalised feedback to students. Within three mouse clicks, academic staff can trigger a range of automated communications to commend high-achieving students, offer additional assistance to lower performing students or to recapture disengaged students. These emails can be a targeted to a group of students and configured by the unit convenor to contain motivating information including the top five resources accessed by classmates; a student's mark in comparison to the class average; number or percentage of students that have already submitted an assignment; clickable links; and support resources for students falling behind.

ILearn Insights was developed based on four principals of learning analytics design knowledge: integration, agency, reference frame and dialogue (Wise, 2014). It has been observed that targeted visual feedback with clickable links is the most effective way to engage students quickly. The positive impact of iLearn Insights is demonstrated by its rapid uptake by teaching staff across Macquarie University. When it launched in Session 1, 2020, after 18 months of piloting, there were 478 users across 763 units (subjects) who sent 125334 targeted personalised emails. In Session 1, 2023 iLearn Insights was used by approximately 808 users across 40 departments and learning support areas and 1237 units, sending over 316576 targeted emails to encourage students to engage with learning activities or offer support. That represents an increase of 169% of users, 162% of units and 253% of emails in three years. These personalised email exchanges have led to enhanced student engagement, which is critical for student success (Kahu and Nelson, 2018; De Villiers and Werner, 2018; McClenney et al, 2012; Klem and Connell, 2004).

Keywords: iLearn Insights, Learning Analytics, Data visualisation

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