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Implementing and scaling authentic assessment through a pedagogical technology partnership

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Authentic assessment has been identified as an effective strategy to transform assessment, with a focus on measuring students' success in skill-relevant and real-life situations (Wiggins, 1998). However, effectively implementing activities that can help foster authentic assessment, such as peer feedback, group work, or team-based learning, especially in online and hybrid courses and large cohorts, is a consistent challenge. (Shank, 2009) To combat this challenge, the higher education institution Deakin University partnered with the pedagogical technology company FeedbackFruits, with the initial focus on developing a solution aimed at optimising group work. Due to the positive impact of the partnership, the two organisations continued their collaboration and worked together on implementing faculty-wide authentic assessment strategies with pedagogical technology, across a wide range of course sizes and modalities.

The first collaborative project was meant to build on FeedbackFruits's two solutions, Peer Review, for streamlining peer feedback, and Group Member Evaluation, enabling group member evaluation. Deakin University signalled the need for a pedagogical feature that would ensure fairness in group work. The two organisations developed the Group Contribution Grading feature that based the students' grades on the contribution of each individual to the group deliverable and allowed the instructor to later manually adjust the grade. With increased visibility for teachers and between students on their performance and contribution to group work, students had more opportunities for autonomy and self-regulation.

The results of the initial collaboration encouraged Deakin University to continue collaborating with FeedbackFruits on a wider scope. Since FeedbackFruits's pedagogical technology included multiple tools that supported a wide range of learning approaches, the new project introduced the possibility to link different elements of different assignment types to customise the setup flow of assignments. As a result, educators could create complete, diversified activities more quickly and easily, as well as access the combined analytics in one place.

Following the success of the past projects, the two organisations, together with several other higher education institutions, developed an AI-powered tool, Automated Feedback, that provided instant formative feedback to students on "lower-level" academic writing concerns, such as citation, academic style, grammar, and structure, freeing up time for the instructors to provide personalised feedback on "higher-order" concerns such as comprehension and critical argumentation of concepts.

The most recent collaborative project involved leveraging the team-based learning (TBL) framework to provide additional learning experiences in established authentic assessment, with plans to scale up across STEM faculty. Following the principles for defining and measuring authentic assessment (Schultz et al., 2021), the institution used the team-based learning Tool 4 to conduct intra-group evaluation after authentic group projects.

The collaboration between Deakin University and FeedbackFruits resulted in a robust ecosystem of co-developed authentic assessment technology that has prioritised the lived experience of educators and continuous improvement. Combining the expertise of higher education practitioners and pedagogical technology developers enabled a highly engaging, innovative learning experience for all students.

Keywords: authentic assessment, team-based learning, education technology

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