INNOVATIVE TEACHING AND LEARNING PROJECT:

COVID-19: Providing a student-centred, living library of resources and feedback to struggling students at scale

B. K. Judd & J. Brentnall

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Introduction

The COVID-19 global pandemic has presented extraordinary challenges for practical and workplace-based teaching. There has been a shortfall in human resources (university academics) to provide underperforming students with additional learning support. Significant staff workload has been redeployed to include other urgent pandemic-related management of student placements. The University of Sydney School of Health Sciences Work Integrated Learning (WIL) academics have recognised that the foundational skills and professional attributes novice students need to master to prepare for workplace-based learning are common across health professions (Chipchase et al., 2012). Therefore, while students come from diverse backgrounds with individual strengths and learning needs, they may not require intensive, discipline-specific, individualised support if they can access strategies and activities to practise and develop foundational skills independently and with peers.

Innovation

We created the Work Integrated Learning Repository of Additional Resources (WIL ROAR) as an online, living library of practice resources, open to students in any relevant degree with a work placement component. For efficiency and reach, WIL ROAR pools predominantly pre-existing resources and hosts new interactive activities. Application across health disciplines with minimal adjustment is prioritised, such as through common stimuli and activities with differentiated model responses for each discipline.

Students' use of feedback from learning and assessment opportunities in their courses, constructive alignment of their opportunities, and development of lasting self-regulated learning skills (Kandlbinder, 2014) is increased via the structural arrangement of WIL ROAR resources and content. Specifically, resources parallel the domains of

Sydney School of Health Sciences, Faculty of Medicine and Health, The University of Sydney, Australia

Correspondence

Dr Belinda Karyn Judd
Email: belinda.judd@sydney.edu.au

the foundational placement skill performance assessment used in several disciplines: professional behaviour, learner behaviour, communication, and reasoning with cases. Students can, therefore, use course-based feedback to direct themselves to the domain in which they require development and apply the knowledge and skills in future academic components of the course.

For impact, most WIL ROAR activities are interactive, with video as both a stimulus and a response format, negating the tendency for struggling students to choose passive self-help strategies. For example, unfolding patient cases have students record a video of themselves professionally introducing their role and then justifying assessment procedures and prioritisation in response to a patient referral. Next, students formulate an ISBAR (identification, situation, background, assessment, request) (Levett-Jones et al., 2010) handover based on revealed assessment results. Built-in feedback-on-submission model responses and guides to self- and peer-review of responses contribute to student autonomy.

As an example of student flow, a cohort of students participate in a university-based "preparation for placement" simulation program. Following completion of the program and associated assessments, the educator identifies struggling students and their specific areas of underperformance (e.g., communication). The educator then refers these students to WIL ROAR as part of a learning support agreement. The students self-enrol in WIL ROAR and work through the relevant module that matches the area/s of most need from their assessment feedback. Subsequently, the students receive built-in feedback from the WIL ROAR site, and the educator tracks students' completion of module tasks. In combination with other learning support tasks, the students are now better prepared for placements.

Student co-designers collaborated with WIL academic content experts and learning and teaching support experts to enable the valuable resources of individual academics to be activated in this student-centred solution at scale. Students were initially stakeholders consulted in the design of the foundational placement skill performance assessment that WIL ROAR parallels. Some students were then involved in bringing the student voice to WIL ROAR as co-designers. They ensured the site was user friendly, with a relatable design and easy navigation, and contributed visual aids and features, replicated consistently throughout the site. Furthering uptake and sustainability, WIL ROAR uses familiar learning management system technology, with background staff workflows supported by the Student Relationship Engagement System (https://sres.io/). This enables feedback and advice to students to be "individualised" at scale and progress tracked. Shared ownership among academics contributing content and guiding student access is key to sustainability and is supported by the familiar platforms, automating processes, and a simple guide for staff, with shortcut links for quick adoption. The minimal ongoing time commitment for monitoring and refining the site supports long-term use with wide roll out.

Evaluation and outcomes

WIL ROAR has had successful uptake across multiple health disciplines, with the majority of users from occupational therapy, physiotherapy and speech pathology. In 1 year from a soft launch, the site has amassed over 12,500 page views on the launch home page alone. Email feedback from both staff and student users has been extremely positive.

> *I have been going through the ROAR website and all the learning activities are truly impressive. I would like to thank you for developing the learning platform and supporting all the physiotherapy students, including me, in this way.* (Physiotherapy undergraduate student)

> *I just wanted to say how fantastic I am finding using WIL ROAR for my underperforming students. The way they can self-navigate through areas they need to work on and the inbuilt feedback makes it stress free for staff. It's been a lifesaver.* (Senior staff member, Work Integrated Learning)

What next?

Expanding built-in feedback based on real student-user responses is furthering capacity for timely and individualised, but not time-consuming, feedback to students. Such technology affords immediacy and "anytime, anywhere" approaches, suitable for use with large numbers of students and, therefore, a strategy on which to continue to capitalise (Evans, 2013). Refining the workflows with usage experience continues, including technologies efficiently alerting required human support in a more nuanced way. Ideally, continued monitoring and improvement will see WIL ROAR contribute to a sensitive and timely solution that recognises student needs, provides assistance and identifies students whose needs are not met.

The WIL ROAR learning and teaching innovation has been critical in a climate where staff capacity and resources are overstretched. The model of exploiting constructive alignment for common skills across courses, reinforcing explicit links from feedback to strategy use, employing student co-design and applying sustainable personalisation technologies is widely applicable. Educators can consider whether a central, multidisciplinary living library of resources and activities linked to student assessment areas can be of benefit in their institutions. Robust research is now needed to support the effectiveness and most valuable design features of this kind of approach.

Conflicts of interest and funding

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