

Creating the student-research nexus in research-led learning

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The paradigm of 'research-led learning' is interpreted in a variety of ways in different curriculum contexts. Commonly, research-led learning is equated with 'research-led teaching' – a process of exposing students to active researchers which is presumed to create an interpersonal research nexus. Alternatively, the student is perceived as the research-led learner, engaged in active (problem-solving) learning which involves hypothesis formulation and testing in a virtual or real laboratory.

In the teaching of cardiovascular physiology at the University of Melbourne, an alternative approach has been pursued which focuses on identifying research literacy as a primary outcome for undergraduate students. The subject is structured into three themes. For each theme a group activity is assessed which requires students to examine primary research literature and interact in developing a collective understanding. The first activity involves consideration of experimental findings which contradict an accepted dogma in the field. The second activity challenges the students to critique popular press interpretations of newly reported research, and provide alternative commentary for the benefit of their peers. To complete the third task, students debate the scientific, social and economic merit of research investment in controversial new therapeutic directions.

The research literacy level achieved by students depends on the nature of their academic investment in the process. For some students an understanding of how research provides the substrate from which text-book knowledge is synthesized is sufficient. For others, exploration of the difficulties of translating basic research findings into the public 'lay' domain offers a vehicle for a more sophisticated understanding of the research endeavour. For all students the opportunity to consider the practice of research (in particular biomedical research) as a subjective process with ethical dimension is enticing.

Thus, the student-research nexus takes on a different form, reflecting both student engagement and career trajectory. A multifaceted appreciation of what constitutes research literacy allows a flexible and student-tailored approach to research-led learning (and teaching).