

RESEARCH-LED EDUCATION AND RESEARCH CAREERS: THE ROLE FOR SOCIAL ENGAGEMENT

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BACKGROUND

This study draws together the pedagogical literature on the value of research-led education, and educational psychology literature on social engagement and career decisions. Specifically, using the conceptualisation of tertiary education as induction into a community of scholars, the paper explores the social engagement dimensions of the education process, the ways in which research-led education can contribute to this, and the resulting impact on further study and career decisions. The study focuses specifically on science students, across a range of disciplines (including life sciences, physical sciences and mathematics), as these are the students with the greatest access to research opportunities at the institution of investigation. One of the key science-education issues the study sought to explore was how- and how well- students were being prepared for possible research careers in science. Further, what impact their experiences of research at an undergraduate level were having on their decisions to pursue science, research (or neither), after graduation.

AIMS

The key aim of this study was to explore student experiences of research-led education and the impact these experiences have on career and study intentions. Of particular interest was the role of social engagement, social identity and the process of socialising students into a community of scholars.

DESIGN AND METHODS

The study was a broad-scale evaluation and investigation of undergraduate research-led education. An online survey was conducted in the undergraduate population of the science colleges at the Australian National University during August and September, 2013. Students were invited through a college-wide email, to give feedback on their experiences of undergraduate research. Both quantitative and qualitative questions were asked of students, exploring their experiences of research-led education, impressions of the research process, perceived skill and knowledge gains and future intentions. As a key part of the evaluation, students were asked to report on their career and further study intentions, impressions of the research process and the ways that their personal experience of undergraduate research-led education had shaped these views. Quantitative data were analysed correlationally using SPSS and qualitative data were explored using thematic analysis.

RESULTS

Data (both quantitative and qualitative) indicated that the quality and nature of undergraduate research experience, as well as perceived social support and newly developed understandings of the research process, all contributed significantly to student future intentions. A key finding that emerged, and the one that is the focus of this paper, was that student perceptions of a receptive social environment, an open and engaged academic staff, and the possibility of building an identity for themselves as a researcher were strong contributors to their resulting career and study intentions.

CONCLUSIONS

These findings, taken together, indicate the key roles for both social engagement and social identity in determining student approaches and attitudes to pursuing a research career. Taking a view of tertiary education as partially directed toward inducting students into a community of scholars, ensuring that students are socially engaged with the discipline and its academic staff and enabling the construction of new research-related social identities are key tasks for educators wishing to scaffold research engagement.

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