Student experience of undergraduate research projects: A perspective on Honours in Australia

Kylie Maree Shaw
BEd (Hons)

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STATEMENT OF ORIGINALITY

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This exploratory study investigated the student experience across a range of fourth-year undergraduate research programs in an Australian university. There is currently great interest in the role of research to improve the national wealth and well-being, and until recently there has been little attempt to understand the relevance of fourth-year research projects within Australian higher education. The study focussed on the student experience of research, and how the journey prepared them for research-based work within their profession or for further research study.

The fourth-year programs offered were grouped into three categories: End-on Honours, Embedded Honours, and a research Project within a practice-based four-year program. Data were collected in two phases: firstly interviews with Coordinators of fourth-year research programs across 19 disciplines; and secondly distribution of a questionnaire to a sample of students completing an undergraduate research project in their fourth year at university. Student respondents to the questionnaire were predominantly full-time Australian students aged in their early 20s in programs across eight disciplines. The questionnaire focussed on research self efficacy, learning motivation, research environment and research orientation. The student research project experience was also explored through the concept of a research journey using visualisation as a tool for students to identify the high and low episodes of their research experience. Commonalities and differences in the journeys were explored using a mix of quantitative and qualitative data analysis techniques. These data provided insight into the impact of research-related tasks on the journey for students in different programs. One of the features of this study is the analysis by type of program, providing a representation of the student experience during their End-on Honours year, Embedded Fourth year projects and the Teacher Research Project.

The role of coordinators as stewards of the discipline emerged as a strong theme, with these senior staff members acting as gatekeepers and nurturing potential researchers within their discipline. Storied text illuminated the rich and diverse nature of fourth-year research programs offered at the site. Overall, students were motivated to complete their research, and were confident in their ability to carry out the tasks involved in the research process regardless of the program they were undertaking. They felt generally supported within their research environment, although those from Education conducting a smaller-scale research project felt they needed more support from their learning community.
A construct of ‘research preparedness’ was developed from several factors, namely research self efficacy, student motivation, research environment, relationship with academic staff, positivity towards the research journey and intention to continue on to further research. Fourth year students showed varying levels of preparedness for research, with male students more likely to show evidence of research preparedness than their female counterparts. Individual students in all types of programs typically experienced different trajectories in completing a fourth-year research thesis. On the whole students enrolled in an End-on Honours program were more positive about their research project at the start of the journey than those in other programs, had the strongest intent to continue on to further research studies and were more likely to show evidence of research preparedness.

There has been previously little attempt to investigate whether earlier experiences of a research project assists in better preparing students for the challenges experienced in doctoral research. Australia has a relatively unique approach to research preparation through the undergraduate Honours pathway, and as such it remains largely invisible in the global higher education landscape. Currently solutions are being sought globally to the issue of high attrition and non-completion in doctoral education, and how to ‘fast-track’ students into a research-focussed career. This study adds a concrete level of detail to our understanding of how the Honours year can assist to both identify students with strong potential and to attract young student researchers into further research studies.