

INNOVATIVE TEACHING AND LEARNING PROJECT

Designing an innovative cohort doctoral studies program for health professionals

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Introduction

Practising health professionals, driven by a desire to see the translation of research knowledge into improved patient outcomes, may wish to improve their research skills via part-time doctoral studies (D'Arrietta et al., 2022). To do so, they must maintain demanding careers within the health sector while studying part-time and externally. Part-time, external research candidates have notoriously poor success rates. To address this issue, a new and innovative program—the Cohort Doctoral Studies Program (CDSP)—was designed for higher degree by research (HDR) candidates studying in a health discipline at a mid-sized, research-intensive Australian university. This paper describes the CDSP and the associated outcomes.

Innovation

The CDSP is a multifaceted program that supports HDR students from pre-enrolment through to completion. Places are prioritised for Australian candidates who are employed in the health sector, but international applicants are also accepted. Each year the CDSP accepts two cohorts of 12–18 students, who remain as an interacting group throughout their candidature. Thereafter, cohorts amalgamate for stage-of-candidature training. Students can attend two intensive “block weeks” each year, where they engage in core and elective training workshops. Each student is assigned a mentor, external to the candidate’s supervisory panel, to provide ongoing in-person or online writing, administrative and pastoral support. The key features of the program are summarised in Figure 1 and described below.

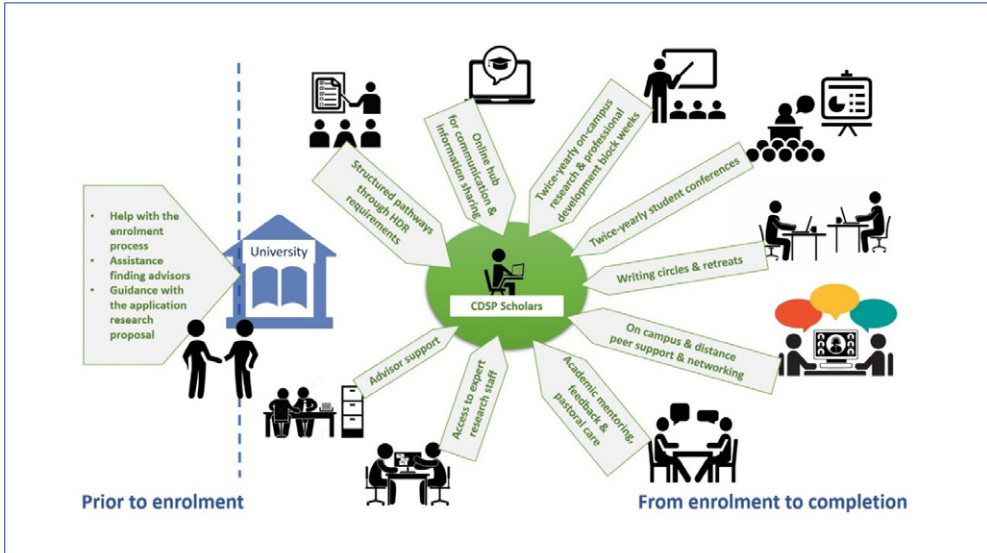
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Figure 1

Teaching and Learning Components of the Cohort Doctoral Studies Program (CDSP) for Higher Degree by Research (HDR) Students



Key program features

Research training

- *Breadth* of workshop topics (e.g., research proposals, methodology, ethics, data collection, management and analysis, time management)
- *Depth* (interactive workshops run by experts in the field in which candidates work with their own data or drafts, enhancing their understanding and progress)
- *Lateral learning* (candidates learn from each other and build a peer group by working together)
- *Frequency and variety* of training (e.g., weekly online writing circle, intra-block week feedback sessions, major triennial conference)
- *Tailoring* training to the stage of candidature. The initial two block weeks are provided to individual cohorts; the third sees two early-stage cohort groups amalgamate, and later block weeks cluster to accommodate the varying completion times of master's and doctoral students. Incorporating student feedback into successive block weeks ensures training matches point-of-need.
- *Online access* to research-related resources and reference materials linked to the workshops.

Writing-centred stimuli

Writing-centred training is provided in block-week workshops covering academic writing, editing, preparing for journal publication and journal critique. Five-day writing retreats, based on the Jackson (2009) model, are provided.

Presentation skills development

Presentation skills are fostered in non-judgemental environments. Practice sessions involving peers, supervisors and mentors aim to develop candidates' confidence and skills in critical thinking, questioning, framing constructive feedback and responding to questions.

Peer-assisted learning

The CDSP facilitates the formation of clusters around common interests. Joint publications between candidates are encouraged and occur frequently. Social activities during block weeks and conferences also facilitate peer networking. A key goal of the CDSP is to counteract the isolation that full-time working health professionals may otherwise face in their research life.

Mentoring and pastoral care

The mentor allocated to each candidate provides support on a routine or needs basis. This approach ensures that assistance is timely. Likewise, the availability of confidential pastoral care (via a mentor or referral) is aimed at ameliorating any issues before student wellbeing is impacted.

Evaluation

Univariate and multivariate logistic regression analyses were used to examine the association between belonging to the CDSP and doctoral outcomes (time to thesis submission, number of articles published) (Churchill et al., 2021). The data collection period extended from January 2000 to January 2020. James Cook University Human Research Ethics Committee granted approval (H7806) to conduct the research.

Outcomes

More CDSP PhD graduates complete their studies under 4 full-time equivalent (FTE) years compared to their discipline peers within the same institution and timeframe (78.9% vs 53.2%, $\chi^2 = 5.22$, $p = 0.022$), with a median time-to-submission of 3.35 FTE years and 3.97 FTE years, respectively. Likewise, a higher proportion of CDSP graduates publish four or more first-author, PhD-related papers during their candidature compared to health candidates outside of the program, 60.0% and 34.7%, respectively ($\chi^2 = 8.58$, $p = 0.003$). Candidates who demonstrate both timely completion and publication productivity are significantly more likely ($\chi^2 = 38.167$, $p < 0.001$) to have participated

in the program than their peers (Churchill et al., 2021). Since its inception in 2011, the retention rate of CDSP candidates has remained above 82%. All CDSP graduates have published at least one first-author, peer-reviewed journal paper. The latter metrics demonstrate that with fit-for-purpose health researcher training and mentoring, a candidate's geographical location, home language or employment commitments need not be a barrier to their doctoral achievement in Australia.

What next?

The CDSP improves the outcome of health professionals graduating with research degrees. The program also fosters doctoral research translation. Follow-up studies will map the translational research impact of CDSP graduates' research in the health sector both in Australia and abroad. The CDSP model has the potential to be successfully applied in professional disciplines other than health.

Conflicts of interest and funding

The authors declare no conflicts of interest. This research did not receive any funding.

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