

Conception to constellation: Rethinking coursework research with STARS

Pieta Shakes, Tracey Gooding, Tracey Ahern, College of Healthcare Sciences,
James Cook University.

Abstract

Postgraduate nursing education plays a crucial role in equipping nurses with the skills needed for evolving healthcare demands and fostering their ability to contribute to research that improves healthcare services and outcomes. Evaluation of three research subjects prompted a rethink of the threshold concepts, curricula and teaching methods. Drawing upon design thinking principles and informed through industry and community engagement, we redesigned an integrated research portfolio that prioritised the needs of a diverse student cohort. The in-development research portfolio is being structured to facilitate seamless transitions for students at various stages of their academic and professional journey, integrating evidence synthesis and research methods into relatable clinical and workplace scenarios. Nurturing critical thinking, engagement and self-assessment of learning, the initiative seeks to foster student engagement and retention while equipping students with the necessary skills to contribute meaningfully to healthcare research and evidence-based practice.

As frontline workers, nurses and midwives are well-positioned to lead meaningful research to improve health services and clinical care, yet strategies are required to support the development of research skills (Eckert et al., 2022). Postgraduate coursework is a vital component of upskilling and reskilling the workforce to meet future workforce and societal needs (Australian Government, 2024). Our coursework Master of Nursing degree included three research-based subjects which worked in isolation. Subject evaluation suggested the subjects were no longer fit for purpose. There was a need to move away from ‘doing research’ superficial level, particularly within the climate of the rising number of predatory journals, misinformation and artificially generated information. Greater attention to critical thinking, socio-emotional intelligence and depth of concepts was warranted to support the aim of improved quality of nursing research output (Eckert et al., 2022). Students already reported an unmanageable workload. Thus, we needed to redevelop rather than add to a curriculum. Drawing upon the CONNECT framework (Ahern et al., 2024), the opportunity presented to rethink curricula and teaching and move from isolated subjects to a well-rounded research portfolio.

We started with a focus on understanding the **Students**. The 2023 cohort comprised many students who reported low socioeconomic status (29%), resided regional/remote (45%), were First Nations (3%) and/or disabled (4%), representing target cohorts for moving towards parity (Australian Government, 2024). Typically working full-time in health and aged care, students were dispersed around Australia, navigating the complexity of a high-pressure role, intensive online study and their family roles. Understanding student **Transitions** to and from each subject was essential. In the intensive online carousel model, students may undertake research subjects at any stage. Students commencing postgraduate education require different “designed-in” and “contingent” scaffolding than students near completion of the program to maintain “high challenge, high support” (Wilson, 2014).

We convened an external reference group (ERG) of academics, researchers, librarians and representatives from Townsville University Hospital, the Office of the Chief Nursing and

Midwifery Officer, the Tropical Australian Academic Health Centre and the Australasian Nursing and Midwifery Clinical Trials Network. With consideration of the student cohort and intensive program, the discussion surfaced transformative threshold concepts (Crookes et al., 2020). These transformative concepts were considered necessary for **Achievement** in the subjects and workplace. New subject learning outcomes were aligned to industry and community priorities, thus attuned to the skills and knowledge that employers value (Australian Government, 2024). The conceptualisation of a research portfolio rather than independent subjects allowed for the depth of pertinent concepts and skills while encompassing an introduction to the full scope of evidence and knowledge creation, synthesis and translation in healthcare.

As a coursework program, students were likely attracted to the advanced practice, education or leadership majors rather than research. To promote the **Retention** of these students who may not have interest or confidence in research, we integrated evidence synthesis and research methods into relatable clinical scenarios designed to scaffold deeper, more critical thought. Activities were enriched with asynchronous peer interaction and exemplar answers to nurture student self-assessment. We developed multimedia resources, including short Q&A videos with health professionals to showcase real-world engagement with all aspects of research. A subject map will signpost the knowledge and skills in each week and topic and alignment with assessments so students can self-identify learning gaps and prioritise learning nurturing autonomy (Wilson, 2014). The redeveloped assessments will include multiple methods of action and expression in alignment with Universal Design for Learning. Our redesign of the research portfolio encompasses industry and community engagement, supported by a focus on understanding students' realities and expectations, and aims to nurture student **Success**.

Questions for audience discussion

1. How might we leverage these current strategies to ensure our redeveloped research portfolio remains relevant and impactful for students' professional development?
2. What other strategies could be implemented to nurture postgraduate coursework student interest, confidence and engagement with research and evidence?

References

- Ahern, T., Gooding, T., & Biedermann, N. (2024). CONNECT: a framework to enhance student connection to their course content, peers, and teaching staff in online learning environments. *Teaching and Learning in Nursing, 19*(2), e243-e248. <https://doi.org/10.1016/j.teln.2023.10.015>
- Australian Government. (2024). *Australian universities accord: Final report*. <https://www.education.gov.au/australian-universities-accord/resources/final-report>
- Crookes, P. A., Lewis, P. A., Else, F. C., & Crookes, K. (2020). Current issues with the identification of threshold concepts in nursing. *Nurse Education in Practice, 42*, 102682. <https://doi.org/10.1016/j.nepr.2019.102682>
- Eckert, M., Rickard, C. M., Forsythe, D., Baird, K., Finn, J., Gilkison, A., Gray, R., Homer, C. S., Middleton, S., Neville, S., Whitehead, L., Sharplin, G. R., & Keogh, S. (2022). Harnessing the nursing and midwifery workforce to boost Australia's clinical research impact. *The Medical Journal of Australia, 217*(10), 514-516. <https://doi.org/10.5694/mja2.51758>
- Wilson, K. (2014). Scaffolding theory: High challenge, high support in Academic Language and Learning (ALL) contexts. *Journal of Academic Language & Learning, 8*(3), A91-A100.