

COMMENTARY

Nurturing Transdisciplinary Learning for Doctoral Researchers: A Doctor of Education (EdD) Programme Perspective

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Received: 21 May 2025, Accepted: 12 June 2025, Published: 16 June 2025

Abstract

This commentary contributes to ongoing discussions about transdisciplinary learning and collaboration in doctoral programmes. The commentary briefly considers recent research on transdisciplinarity in doctoral programme design before considering the example of a recent Doctor of Education (EdD) programme development process at an Asia-Pacific university. Amongst the reflections offered here are the importance of adopting an agile mind-set to programme design and development and the need to develop programme contingency planning to anticipate organisational changes in a precarious higher education environment. Insights from this project seek to open avenues for future research following similar doctoral programme development and implementation at universities globally.

Keywords: Transdisciplinarity; Tertiary Education; Organizational Change; Agile; Pedagogy; Doctoral; Public Policy

Transdisciplinarity (TD) has been described as research across disciplinary boundaries, in collaboration with community stakeholders, that focuses on solving wicked problems [1,2]. Such collaborative, impact-oriented research aligns with the field of education, which has always been concerned with linking research, service, and social change in collaboration with practice communities. In recent years, universities have embraced TD to cross disciplinary boundaries and work with internal and community stakeholders to solve persistent problems. Such collaborative, impact-oriented work emphatically aligns with the goals of Doctor of Education (EdD) programmes in which practising professionals develop applied research skills to link research and practice to improve learner outcomes. There is a growing body of transdisciplinary research that includes scholarly and professional publications and discussions [3–5]. More recent research has explored how TD, coupled with new learning technologies, can improve student analytical and creative capacities, suggesting a particular strength of this approach [6,7]. Yet, as above, the literature on preparing doctoral students for TD research stops short of offering specific programmatic and curricular suggestions. This commentary, written from the perspective of three academics involved in an EdD programme’s development and implementation, presents one such effort to move from a discipline-specific EdD to a transdisciplinary EdD programme at an Asia-Pacific university.

We orient ourselves on pedagogical elements outlined by Kemp and Nurius [8], Hawkins [9] and Choukrani and Ghneim-Herrera [10]. Our design is also informed by frameworks of horizontal and vertical curriculum integration of transdisciplinary thinking and content [11]. Our key design themes considered (1) threading transdisciplinary content and learning experiences both horizontally and vertically throughout the curriculum; (2) encouraging and supporting students to consider “big” problems and design transdisciplinary projects that incorporate broad stakeholder participation and knowledge integration; (3) developing students’ relational, communicative, conceptual, and methodological skills, which are important for transdisciplinary projects involving multiple stakeholders; (4) building a transdisciplinary learning community within the cohort – including students and staff from different disciplines; (5) connecting to the broader academic and stakeholder

community to build (transdisciplinary) knowledge and networks; and (6) using a variety of delivery modalities, teaching methods and learning experiences.

In addition, this project was guided by Boulding's seminal organisational-change perspective [12]. This perspective posits a progression of increasing organisational complexity requiring more openness to surrounding environments, greater dependence on information flows, and heightened adaptability. Moreover, given the higher education institutional and community context, the team also used an agile approach to flexible collaboration and managing the project developed for an earlier transdisciplinary collaboration led by one of the authors [13].

Guided by these principles, the academics involved with the formation of the EdD collaborated with others from across the university over 12 months to develop the programme. These researchers came from diverse disciplinary backgrounds, including education, educational leadership, public policy, law and organisational theory. The university's graduate profile emphasises connections to the local community and the ability to translate research findings to the general public. Within this context, our EdD programme is a four- to six-year, part-time study programme, with the first two years consisting of cohort-based coursework. During the coursework portion, students craft a research proposal based on a critical analysis of prior research. They select a theoretical framework to guide their proposed research and a methodical approach for their inquiry. In the following years, students conduct their research projects under the guidance of their transdisciplinary supervisors.

As we designed the transdisciplinary EdD, we quickly found that beyond the expected challenges of integrating different disciplinary norms, genres, and conventions, organisational structures within the university posed unanticipated obstacles. Despite the university's call for transdisciplinary work, existing boundaries, job contingencies, and funding constraints required us to continually pivot to accommodate the reality of "building a plane while flying it." As Scott and Davis [14] suggested, our team found that increasing organisational complexity required more openness to the surrounding environment. For example, staffing turnover and teaching demands forced one core team member to take on additional teaching, making them unavailable for the EdD. Further obstacles included administrative differences between academic departments, attracting students to an EdD from other disciplines, and the complexity of teaching that integrates methodological and epistemological considerations from within and across the disciplines.

Despite the organisational challenges, a cohort of eight students began in 2024. Our recruitment focused on the intersection of leadership and policy; however, given that the programme was based in the Faculty of Education and would result in an EdD it did not attract students from other disciplines. Academics from several disciplines were involved in course development and delivery. We revised the assessments to focus on communicating with the students' workplaces and communities: for example, in the first year, students create a community "poster," translating their research topic into a visual format, and a policy brief that identifies the policy context of their topic.

Although the team embraced the TD of the reimagined degree, prospective students did not necessarily decide to return to study with this in mind. Traditionally, EdD programmes attract educators who are looking to advance in their careers (often into school leadership positions), and, indeed, the applicants were from education backgrounds. Attracting students from other disciplines – e.g., educators from the health sector, nonprofits, or education policy organisations – is a potential growth area for the programme. In addition to traditional programme marketing practices, including internet advertising and webinars, initial recruitment tended to leverage the university's alumni office to attract the university's Master of Education graduates. In future, this approach could easily be broadened to attract graduates from a range of disciplines, including public health and public policy, which often have students with complementary research and professional interests. Finally, we could broaden the lecturing staff to include academics from other fields, who could in turn help recruit graduates from their master's programmes.

Through this commentary on our early programme curriculum design and delivery considerations and challenges, we hope to trigger a broader discussion with readers who desire to prepare postgraduate and emerging researchers for transdisciplinary research. The challenges in developing the transdisciplinary EdD programme offer lessons for others engaging in transdisciplinary work, such as the contingency planning that was needed to anticipate organisational changes. Insights from this project contribute to a nascent field of inquiry, opening avenues for future research following similar

doctoral programme development – and implementation – at universities globally.

Funding Statement: This study was not funded by any external sources.

Contribution: All authors contributed to the research and writing of this article and have read/agreed to the published version of the manuscript.

Informed Consent Statement: Not applicable.

Data Availability Statement: This submission is a commentary and there was no data collection. All sources cited in the commentary are publicly available.

Conflict of Interest Statement: The authors declare no conflicts of interest

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