AUSTRALIAN DBER: INVESTIGATING THE LANDSCAPE AND DEVELOPING INNOVATIVE TRAINING RESOURCES

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AIMS: This project investigates the current state of Discipline-Based Education Research (DBER) in Australian higher education, focusing on the research training needs of students and the structural challenges faced by academics working in DBER across chemistry, biology, physics, and mathematics. The aim is to develop national, collaboratively produced resources to support Honours and HDR students and to foster a more connected DBER community.

SOURCES OF EVIDENCE: The study draws on institutional theory and communities of practice to examine how DBER operates within and across disciplinary boundaries. A national survey of DBER-active academics (N ≈ 90) has been completed, and interviews are ongoing. The results offer a snapshot of DBER infrastructure, support, and gaps in the Australian context.

MAIN ARGUMENT: Survey data highlight significant unmet needs: 90% of respondents report limited access to DBER coursework or training and limited availability of funding or resources and 60% cite institutional preference for traditional discipline research. Only 40% report having access to a formal DBER group at their institution. While most respondents supervise DBER students, fewer than half offer structured mentorship.

Despite these challenges, the survey also reveals substantial momentum. Many respondents are already supervising DBER projects, engaging in collaborative activities, and contributing to a growing informal network of practice. A majority express strong interest in sharing resources and participating in a national DBER community. These findings underscore both the need and the opportunity for structured, accessible, and contextually relevant training infrastructure.

Guided by these results, the project team is developing a suite of modular, flexible DBER resources to be hosted by ACDS. These include guides on literature reviews, theoretical frameworks, research ethics, data collection and analysis (quantitative, qualitative, and mixed methods), and case study exemplars, aligned with topics most frequently reported as lacking or desired in the survey.

CONCLUSIONS: The project's early findings reinforce the need for targeted DBER training infrastructure and demonstrate strong academic demand for a national resource hub. By documenting current practices and responding with scalable training materials, the project contributes to long-term capacity building and visibility for DBER in Australia. Findings from interviews and resource pilot testing will further inform the refinement and implementation of these resources in late 2025.

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