

Proposal for Masters by Research

From a Monodisciplinary to a Multidisciplinary Mindset: Applying the Lessons of Applied Linguistics to Interdisciplinary Research in the Higher Education Sector

Ms Jasmine Bouhali

Proposed supervisors:

Dr Loy Lising (Linguistics) and Professor Amanda Barnier (DVCR)

Brief Background

In the higher education sector, there have been increasing calls for researchers and institutions to prioritise interdisciplinary research (both across disciplines and across higher education and the broader Research and Development system) as a means to solve significant societal challenges, drive growth and innovation, and help to ensure Australia's social and economic prosperity. This call was repeated recently in the Federal Government's Strategic Examination of Research and Development (SERD) report, "Ambitious Australia". The SERD Panel recommended that Australian research endeavours be coordinated around a small number of challenge-focused national pillars (rather than disciplines), governed by a series of central councils. However, higher education commentators responded by arguing that such interdisciplinary architecture will fail without an accompanying focus on interdisciplinary culture and capability (e.g., McLennan & Barnier, 2026). To address this, McLennan and Barnier proposed "improving our potential for 'consilience' across research collectives, institutions, and the sector". By consilience they meant:

"the deliberate, repeatable integration of knowledge across boundaries (disciplines, sectors and jurisdictions) ... achieved through shared language and frameworks, boundary-spanning roles, second-language learning between disciplines and sectors, and everyday coordination practices that allow knowledge to move, combine and resonate" (see <https://futurecampus.com.au/2026/03/16/why-australias-rd-review-wont-work-without-the-science-and-art-of-consilience/>).

Although there is a large literature on the theory, practice and measurement of interdisciplinary research (e.g., Gerlich et al., 2025; Lamain et al., 2024), successful interdisciplinarity remains challenging. For instance, in 2016, a sequence of qualitative interviews with 12 researchers actively involved in interdisciplinary work at

Macquarie University highlighted a range of benefits of such work but also significant challenges. One important challenge was in negotiating disciplinary boundaries. Researchers pointed to discipline-specific assumptions, norms, conventions, and jargon as sources of tension and impediments to mutual understanding and successful cross-disciplinary collaboration. A decade later, in reports just collected on Macquarie's BioInnovation initiative, researchers still describe challenges of understanding and collaborating with their cross-disciplinary peers, despite significant focus in university and sector wide strategies and incentives for cooperation, coordination and consilience.

As the Project Officer supporting Macquarie's 11 University Research Centres, I see these challenges daily: researchers and research collectives aiming for consilience but struggling to navigate language and cultural barriers across their disciplines (e.g., getting on the same page, defining shared problems, understanding one another's disciplinary language, norms and approaches and other intercultural aspects). Some of their strategies include joint workshops to educate one another on the basics of their disciplines or incentives in the form of seed funding for interdisciplinary teams to work together on shared problems. However, researchers (and institutions) have limited time and resources. So, in this constrained context:

What would be the most conceptually coherent and evidence-based approach to supporting successful interdisciplinary communication and consilience for research in the higher education sector?

Extending the Multilingual Mindset to Research Collectives

To address this question, this project draws on the latest research in applied linguistics to explore how the development and adoption of a "multidisciplinary mindset" can support the formation, performance, success and satisfaction—the consilience—of interdisciplinary research collectives in the higher education sector.

In 2008, Clyne introduced the concept of a "monolingual mindset", defined as seeing everything through the lens of a singular language. Monolingualism is viewed as the norm and plurilingualism as exceptional. Within this mindset, there is a failure to understand how skills in different languages (outside of the resident nations' dominant language) can build a rich and diverse society. As Clyne infers, the monolingual mindset ignores the fact that communicating even in a singular

language, requires more than a monolingual understanding of the language; it requires understanding the culture as well. According to Lising (2024), the monolingual mindset also “fails to appreciate the benefits inherent in language learning” (p.44), and can leave individuals feeling ‘othered’; as though their linguistic and cultural contributions are less valuable. Clyne (2008) illustrates this othering via an examination of the Australian political landscape in 2007 when politician, Kevin Rudd, was harshly criticised for speaking Mandarin on a Chinese interview program (Clyne, 2008). Clyne emphasises the importance of including multilingual individuals in decision making roles to ensure societies can fully benefit from linguistic and cultural diversity.

The monolingual mindset can be used as one lens to view the ongoing challenges faced by researchers and research collectives in the higher education sector as they pursue effective interdisciplinarity. Researchers are often trained (both as individuals and within disciplines) to think and act in a monolingual or monodisciplinary way. Their skillsets are often honed from the outset of their academic journey to work in a monodisciplinary way, with a lack of importance placed on forming multidisciplinary relationships early in their careers. They often lack the linguistic and cultural skills to move beyond this mindset in a way that supports successful consilient collaborations.

Lising’s (2024) research on and advocacy for a “multilingual mindset” provides a way forward. Lising developed this concept in response to Clyne’s research, and to offset gaps made evident in the monolingual mindset. Lising (2024) defines a “multilingual mindset” as:

“A way of thinking about languages that is mindful and expectant of variation in language proficiency, variation in language repertoire, and variation in language practices. And these have implications in terms of language attitudes, language practices, and language policies across various domains” (p. 46).

According to Lising, a multilingual mindset recognises that languages in one’s repertoire are often used simultaneously to effectively convey an idea and communicate meaning. Lising illustrates this by sharing the experiences of Filipino migrants who have come to Australia with their multiple languages (Lising, 2022, 2024). Unfortunately, these language skills are often not valued within a monolingual community, where the dominant language (in this case, English) is the only language appreciated by the nation at large. Lising argues that embracing a multilingual

mindset has many advantages such as creating a linguistically and culturally rich society that is more empathetic, connected, diverse and socially just. Lising also has explored the applicability of the multilingual mindset across a range of important applied contexts, such as in healthcare, education and the workplace.

This project proposes to extend Lising's concept of a multilingual mindset to the challenges of interdisciplinary research in the higher education sector. How might researchers, research collectives and research cultures be encouraged to recognise and appreciate different disciplinary languages and cultures? How might they be supported to move successfully from a monolingual (monodisciplinary) to a multilingual (multidisciplinary) mindset? And would this move predict the success of these researchers and their research collectives?

Proposed MRes Research

1. Conduct a systematic review of the literature on approaches to and challenges of interdisciplinarity in the Australian (and international?) higher education/R&D sectors to identify recognition, discussion and proposed solutions for a monolingual (monodisciplinary) versus multilingual (multidisciplinary) mindset. Have scholars conceptualised the problem of interdisciplinarity in this or related ways? What approaches have been adopted (whether conceptualised explicitly as multilingualism or not) to embrace a multidisciplinary mindset, especially approaches focusing on cultural communication elements? What evidence exists for the impact of such approaches on the success of research collectives following multidisciplinary mindset-like interventions? And what lessons can we draw for a potential approach to developing researchers, research collectives and a research enterprise that aims for a multidisciplinary mindset?
2. Analyse qualitative reports of cultural and communication difficulties in interviews with interdisciplinary researchers at Macquarie University (subject to ethics approval) to test the relevance of the monolingual versus multilingual mindset framing in the higher education/R&D sectors.

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