

Building Interdisciplinary Degree Programs: Administrative and Organizational Issues

Lucy Johnston

Dean of Postgraduate Research
University of Canterbury (New Zealand)

Nā tō rourou nā taku rourou ka ora ai te iwi.

With your food basket and my food basket the people will thrive.

In this contribution I turn our question on its head – rather than focusing on how to promote, or overcome barriers, to interdisciplinary research, questioning *why* we wish to do so and in what context, focusing especially on issues related to doctoral students.

The general consensus of those at this summit, and I think in academic in general, is that interdisciplinary (and multidisciplinary and co-disciplinary) research should be encouraged and facilitated. A number of factors that have inhibited this have been identified, such as financial and structural issues, as have some innovative solutions to overcoming these barriers and both the national and national levels. I do pick up on some of the counter arguments highlighted by Lisa Young in her presentation and raise 3 points as pauses for thought. Having paused to consider these points, if the consensus toward the enhancement of interdisciplinary research remains then as leaders in this space at a variety of institutions we must work to ensure that institutional, structural and financial barriers do not hinder academic developments.

What does it mean to be inter-disciplinary in research?

A vital point to consider here is *discipline*, the need for research in any field – including in interdisciplinary research – is carried out in a through and systematic, or disciplined, manner guided by appropriate theoretical and methodological frameworks. It is essential that inter-disciplinary research does not lose that discipline from its constituent discipline/content areas; it cannot as Lisa said become undisciplined. This raises questions about who does interdisciplinary research and how that research is evaluated.

To do interdisciplinary research one should have necessary background and competence in the component disciplines – for example, a biochemist needs to have background in both biology and chemistry; a psycho-linguist in both psychology and linguistics. Having a strong background in one component discipline does not always suffice; the interdisciplinary research needs to know and acknowledge differences across disciplines. In some cases it is relatively straightforward for the requisite knowledge and skills to be embedded in a single person (e.g., a biochemist), at least by the time they have reached doctoral level, but for others this may not be so, reminding me of Laura Poole-Warren's comment about a student walking on eggshells across/between disciplines. For the doctoral candidate this is important to acknowledge – having one supervisor from Linguistics and one from Psychology does not mean that the student is a psycho-linguist! Inter-disciplinarity requires integration not co-occurrence of disciplinary knowledge and methodologies. Without integration neither the individual researchers nor the project can truly be

interdisciplinary; a project team comprising of experts across a number of domains renders the project multi- but not necessarily inter-disciplinary.

The comments above have implications of course for the evaluation of interdisciplinary research. If one person cannot have all the expertise to do the research then are there individuals who can adequately evaluate the research – thesis examiners, journal and grant reviewers being of particular importance. The questions over adequate ability to effectively evaluate interdisciplinary research leads to a possibility of the research not be recognized in high impact research outlets, falling between the cracks of disciplinary based journals. This may lead one to question whether the risks associated with interdisciplinary research might preclude one advising doctoral candidates or junior researchers to go down this route. At the same time this limits innovation in research. Accordingly the development of appropriate research and evaluation structures must occur at least concurrently with the development of interdisciplinary research itself.

Research Structures

As alluded to above appropriate structures are necessary to facilitate interdisciplinary research but the structures themselves don't create that research. Forming structures – for example, interdisciplinary research centres with independent funding – that allow for interdisciplinary research does not guarantee the production of such work. Often time and additional incentives are needed to break down pre-existing disciplinary barriers and create an interdisciplinary research identity. Changes in structure are necessary but not sufficient. The development of true interdisciplinarity requires attitudinal change at the level of individuals, disciplines, institutions, national and international bodies. The most frequently raised barriers when talking to colleagues are issues of finance and institutional structures but I would hazard the view that in fact the attitudinal differences between researchers from (and toward) those from other different disciplines play a greater role and are harder to overcome than structural change and may explain why in some instances the development of interdisciplinarity does not occur despite fiscal, organizational and physical structures to support it being available. Interdisciplinarity will only develop, thrive and be sustained if it is afforded the same level of respect as single disciplines, both by those engaged in that interdisciplinary research and those watching from the sidelines. Such respect is predicted on knowledge and understanding of the component disciplines and their importance in the basis for the development of strong interdisciplinarity.

The facilitation of interdisciplinary research structures should be considered alongside the maintenance (if desired) of disciplinary identities. Has, for example, the creation of departments of earth sciences, geosciences or environmental sciences brought together the component disciplines such as geography and geology in a beneficial manner or instead lead to a loss of disciplinary identity and rigour?

What is the most relevant level of intervention?

There is a tendency for us all to focus “close to home” which make sense given that it is the level at which individuals might most easily effect change. However, local change is not sufficient, especially when considering doctoral research. We do not want to prepare these students only for them to work at one institution, that at which the doctorate is completed. Student research and the individuals themselves must be portable and pass-on-able. We can all probably recall the

demise of an interdisciplinary programme or institute after the retirement or departure of a key individual. This means that there must be access to funding (national as well as institutional), high quality journals and other research outlets, grant applications and career opportunities. Accordingly it is incumbent on us, as leaders in graduate research, to lobby academic organizations, professional bodies and publishers to ensure that interdisciplinary research is sustainable and not dependent on one key person or institution.

Solving the “big issues” facing today’s society require collaboration between individuals from different disciplines and perspectives. Individuals can contribute different parts of the larger puzzle, but crucial to true interdisciplinary research, and to the development of effective solutions to the “big issues”, is the emergence from these collaborations of new approaches to the problem, new methods and perspectives that are founded on the component underpinning disciplines. Interdisciplinarity is only sustainable when these new approaches are applicable to more than one problem or project.

As researchers we need to cross and push boundaries, we need to be innovative and exploratory. But in mentoring doctoral candidates, and junior colleagues, we also need to be cautious and consider what is achievable (in what time frame) and how is will set these individuals up for their future careers.