The case for a team research framework

By Gabriele Bammer*

MARCH is a big month for research in Australia. Applications in the two major funding rounds for the Australian Research Council Discovery and National Health and Medical Research Council project grants are due, as are submissions to the Excellence in Research for Australia process.

Both the grant writing and ERA calculations once again raised questions about the adequacy of support and recognition for interdisciplinary research.

A report I just completed for the Australian Council of Learned Academies called Strengthening Interdisciplinary Research: What it is, what it does, how it does it and how it is supported explores some key questions. Is it true that interdisciplinary research is marginalised and underfunded? If so, why? And why are we still asking questions about how interdisciplinary research should be initiated, funded, managed, assessed and rewarded?

The report identifies two problems that occur both here and overseas. First, interdisciplinary research is treated as a single entity, even though it comes in many forms. For instance, it can refer to one researcher drawing on ideas and methods from two or more disciplines to address a specific problem, such as bringing together insights from sociology, anthropology and psychology to study crime victimisation.

It is also the term used when researchers and businesses partners invent a new commercial product or process, such as a blood pressure drug or an extraction technique for mining. It covers major team efforts on complex problems with implications for government policy and how we live, such as global warming or obesity, where experts from multiple disciplines, stakeholders and end-users are brought together.

Because of the confusion about what interdisciplinary research is, it's not possible to measure how much is conducted. Thus, we don't know how it's faring. We must develop an agreed classification that distinguishes the major kinds of interdisciplinary research.

The second problem is that the methodology is poorly documented. In contrast to the disciplines, there are no standard procedures for reporting interdisciplinary research. Published accounts are invariably incomplete, making it impossible to fully understand and assess what occurred or to draw lessons for improving future investigations.

That explains why we can't assess the quality of interdisciplinary research or be sure about the best way to educate the next generations of investigators. The answer is to develop frameworks that describe the different kinds of interdisciplinary research and how to extract lessons from them. Developing a new classification system and frameworks for effective description, as well as translating these into toolkits, education strategies, data collections and measures of quality, are far from trivial tasks. They would require a bold well-funded large-scale initiative of worldwide relevance.

The challenge is not to look for magic bullets, but to work with the complexity of such research and to make it an activity that is well-embedded in the academic mainstream.

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