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Am I an *Education* Researcher?

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Abstract
How individual researchers and communities of scholars situate themselves with respect to each other has a range of consequences, relating to issues from identity and norms of practices, to how one is benchmarked or positioned to apply for jobs or funding. Education, perhaps more than other disciplines, has a longstanding attention to tensions in this situating. This paper provides a reflection from an individual researcher, relating their experience to the literature, and collated and original analysis of data relating to education research in Australia, to provide an instrumental case study. It does this through framing of disciplines in relation to areas of knowledge, organisational units, and communities of researchers. The paper provides an overview of the discipline, including some key organisational features and updating of data commonly used in benchmarking exercises (while recognising the significant limitations of such data). The paper is intended to support researchers in their own reflection, and perhaps provoke (senior) researchers in considering challenges we face.

Keywords Early career research · Meta research · Research management · Research policy

Introduction

Am I an *Education* Researcher? That might seem like an odd question to ask at the start of a paper in an education journal. However, our identities as researchers and practitioners relate to the communities we are able to work in and with, our perceived credibility, and synergistically how disciplines (and their associated identity) are externally construed and legitimised. Asking 'Am I an Education Researcher?' can be read as a reflection to myself, or an invitation to a community; it prompts questions about how the discipline situates itself, and how those who do work that crosses disciplinary—and perhaps professional—boundaries can situate their work

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with respect to the discipline. Addressing these questions matters both for individuals and the discipline itself, for various reasons that are broadly instrumental (jobs, promotions, grant applications, etc.), and less-instrumental (sense of community and how we connect across domains of research and practice, how we understand 'contributions' to the discipline, etc.).

This paper provides reflections against that provocation, drawing on the author's experience, the broader literature, and evidence regarding the positioning of education research in Australia. In the sense that this paper provides the reflections of an individual, it is inherently specific. However, the reflexive approach is intended to provide an instrumental case study (Stake, 2003), situated in (or triangulated by) literature regarding the wider context that we—readers of this journal—share. In adopting that approach, the remainder of the paper will discuss different ways one might situate in a discipline as (1) areas of knowledge; (2) organisational units; (3) communities of researchers, with each section discussing relevant literature regarding these framings, and my reflection on the structural context I have worked in. While this focus is on conceptualisations of disciplinarity and organisational structures, that is not to ignore the ways that social structures and power—including instantiated in my own position and privilege—play a role in understanding how research is positioned and related in Australia generally, and by individuals. The paper is intended to support researchers—in academic, and non-academic roles—and to provide a provocation for research leaders in the broader discipline(s). It addresses this intent by providing reflection on some of the challenges faced in framing a discipline and the consequences of this for research(ers), alongside providing analysis of some key organisational features and updating to data commonly used in benchmarking exercises (while recognising the significant limitations of such data).

Disciplines as areas of knowledge

Disciplining education: aims and histories

Across international context education and its various sub-domains can be characterised by internal tensions regarding its nature as a discipline (Furlong, 2013; Furlong et al., 2010; and with respect to higher education research specifically, Tight, 2014, 2020). Does education research describe a domain of application, education, for various foundational disciplines? Is it an applied research field in its own right, like evaluation? Or is it a Discipline, with a basic research agenda, and if so, what are its aims?

One way of characterising education as a discipline is in terms of adherence to shared structures of rigour towards a community of arguers (Standish, 2019), that is, that education researchers are not just committed to the cause of education, but that there is some shared understanding of what it means to know something about education, and the procedures or standards that help us understand these claims. However, this is a contested view, not least because of debate regarding the salience of foundation disciplines, Academic knowledge traditions include the

idea of education built on the 'founding subjects'—philosophy, history, sociology and psychology (Furlong & Whitty, 2017)—in the field (Standish, 2019). As Standish puts it:

> 'It is important to acknowledge the ways in which educational research has not developed as an autonomous, fully self-determining field of study. With any subject there is always a politics of knowledge to be addressed, but in educational research this is particularly salient.' (Standish, 2019, p. 547)

Despite these tensions, it seems reasonable to point out that universities can exist with almost any combination of faculties or departments; as one of its basic functions, universities—even those with a research focus—cannot exist without some interest in learning. Learning in universities obviously takes place in taught classes across the range of disciplines. This teaching is often supported by staff with expertise—and research agendas—in educational research, and indeed alongside wider research that may relate to learning concerns (e.g., public health research must draw on learning expertise in relation to healthcare professional learning and public communication). These pursuits sit alongside the research and teaching in faculties or schools of education. As Wyse puts it:

> 'Education, not least through teaching and learning, is a fundamental aspect of human existence with a very long history that includes the interactions of the earliest human beings. Education's formalisation in schools and then as an academic discipline in universities was to come later. But the connection between these histories is an essential part of understanding education as a specialised way of thinking.' (Wyse, 2020, p. 5)

Despite this centrality of learning, there are long standing concerns regarding the position of research on learning, and its assessment as an interdisciplinary area (e.g., Ross, 1975 on Education as an undergraduate subject). Historically, there are international differences in the emergence of research on learning, and the role of organisational structures, specifically with many countries—including Australia—seeing scholarly study emerge from teacher education contexts (Bobis et al., 2013), in Europe charting to the seventeenth century, with integration of the academic discipline within universities only in the twentieth century (Furlong, 2013; Wyse, 2020; and with a focus on German-speaking context, Siegel & Matthes, 2022). The position of teachers, and the traditions they are inculcated in, thus inevitably influence the broader position of education research, for example in the different positionings of German Didaktik, or pedagogic and North American curriculum studies traditions, and the role of teacher expertise in those traditions (Tahirsylaj et al., 2015; Uljens & Ylimaki, 2017). To a degree these differences reflect both variation in the philosophical underpinnings of education in different traditions (Brooke & Frazer 2013; Uljens & Ylimaki, 2017), the significance of these underpinnings for teacher education (e.g., Stehlik, 2018), and concerns regarding diminishing connection to these underpinnings (e.g., in educational psychology, Alexander, 2003; and teacher education, Colgan & Maxwell, 2019; Deng, 2024; and more broadly, e.g., Biesta, 2024b). Of significance is the

degree to which the *practice* of education—notably teaching—and its aims are core to the theorisation of education, and the implications of this for the coherence and positioning of the discipline as a whole. Consideration of education as a discipline should not ignore philosophical foundations, and variation among these foundations. Scholarly societies devoted to education—including the, American, Australian, and British Educational Research Associations (AERA, AARE, and BERA respectively)—emerged over the twentieth century (in 1916, 1970, and 1974 respectively). This relatively late development of the scholarly structures, from a vocational background, in some places has resulted in the study of education being seen as 'less than' within university structures (Bessant, 1996; Furlong & Whitty, 2017; Gill, 2004). Having emerged from this vocational origin, further historical context illustrates that during the early formalisation of the disciplinary area across Australia and the United Kingdom, there was a perceived over emphasis on experimental psychology (Bessant & Holbrook, 1995; Furlong & Lawn, 2010; Gale & Lingard, 2010). This epistemological commitment is a familiar—albeit reversed—issue to date, reflected as early as the 1980s-90s in AARE's later shift away from quantitative traditions and corresponding qualitative turn (Bessant & Holbrook, 1995, Chapter 8), and recent calls (largely outside AARE) for a refocus on research more closely linked to methods in psychology (e.g., AERO, 2023). Common across these themes is a concern for the ways educational research is represented, as Gardner asks of educational researchers,

> 'When we examine our reflection closely do we see a community struggling to have its voice heard, never mind have its message understood, by government and the public alike? In too many cases, I would argue, the answer is "Yes".' (Gardner, 2011, p. 547)

Despite this historic context in teacher education and later educational psychology, education research is also marked by a broad focus, that includes both organisational and policy-level research, alongside individual-level research regarding issues of cognition and the processes of learning, and various concerns in between (Gardner, 2011). These historic developments have, in places, charted towards what Johnson et al., (2018) describe as third generation schools of education, with increased interdisciplinary research, internationalisation, and innovation. Others have charted shifts in focus from attention on individuals learning in formal educational settings, to a wider perspective of learners in social context both within and beyond formal educational contexts, including through both professional and informal learning, and adult and community education settings (e.g., Conole, 2013; Duschl & Tahirsylaj, 2021; Evans et al., 2016; Hoadley, 2018). Emerging in the late 1980s, the learning sciences provides one model that has attempted to shift focus from the formal structures of education, to the understanding and design of broader environments and processes of learning, in material and social context (Fischer et al., 2018; Hoadley, 2018; Kolodner, 2004; Pea, 2016; Sawyer, 2022). Indeed the learning sciences is established as a subfield of education in Australia, although tensions exist regarding its naming and conceptualisation, with the related 'science of learning' tending to focus more narrowly on individual neuroscientific and cognitive concerns (Goodyear, 2015; Privitera et al., 2023). More broadly this shift to focus on learning is

itself contested, on the one hand raising concerns that the efficacy-focused intent to model individual process of learning gives too little attention to teachers, teacher judgement, and the aims of education as deliberative practice towards shared values (e.g., Biesta, 2024a, 2024b), criticisms that at least some in the learning sciences would reject (e.g., Goodyear, 2021).

Closely connected, there is now over 40 years of research at the intersection of educational and learning research, with artificial intelligence,[1] analysis of computers in collaborative work and learning,[2] technology enhanced learning, and the information sciences. While contemporary rhetoric at times implies an instrumental relationship between education and technology—that technologies should be used to support education, and that educators must teach for engagement with technologies—the areas are more deeply intertwined, as historical analysis of AI and education research demonstrates (Doroudi, 2022). Research on learning draws on multiple fields, conceptually, materially, and socially, and similarly influences multiple fields. The connections are neither unidirectional, nor easily clustered into departmental groupings.

Gardner's, 2011 Presidential address to *The British Educational Research Association*, in recognising the diversity of backgrounds from which education research draws, posed the question: 'What are all these researchers trying to achieve? Or put another way: what is the purpose of educational research? Is there anything that binds all of the different types of researcher together?' (Gardner, 2011, p. 546). Gardner's answer, one I subscribe to, is that *learning* is the central feature of this research, across background disciplines and methodological approaches (Gardner, 2011). In this view, what delineates the discipline of education is that it seeks to better understand, and support, the processes and outcomes of learning, and correspondingly to support societal learning regarding, 'the complexity of learning and the complex social framework in which it is fostered, namely "Education"' (Gardner, 2011, p. 552).

One way of framing this position is the notion that learning is a situated, social endeavour, facilitated and developed through social interactions and conversations between people (Vygotsky, 1987), and mediated through tool use (Wertsch, 1993). This perspective also makes clear that learning must be viewed at multiple levels; we learn specific things in wider environments, our learning changes those environments, and builds on them. Or, to put it another way, our capacity to respond to events as a society is more than just the sum of our individual capacities, it is made up of the intertwined sets of capacities we have in interaction with our tools (including data representations, communication outlets, etc.) and our interactions with each other (e.g., Fenwick, 2015). As Fenwick (2010) highlights, our practices—across work and learning—are entangled with material objects including technologies, and these objects alongside people are in constant interaction acting on each other as

[1] Self (2016, p. 5) cites 1983 as the first explicitly AIED event ("As far as I recall"), with the 'book of the conference' published in 1984 (Yazdani, 1984).

[2] CSCL held its first conference in 1989 (O'Malley, 1995) and CSCW in 1986, with clear links between them (Greif, 2019; Russell et al., 2016; Schmidt & Bannon, 2013). Much of the recent discussion of AI in education has failed to engage with, or recognise, this shared history.

mutually constituted. The sociomaterial perspective makes clear that a separation of humans and 'things' that backgrounds our material tools as mere context, underrecognises the significance of these tools as things that act in and are acted on, in human practices. This perspective reflects that 'matter matters in the processes of becoming and knowing that constitute the worlds of work [and learning]' (Fenwick, 2010, p. 4 […] my addendum), that is, that learning cannot be characterised in terms of processes of individual human development in context.

For Gardner the role of education research in illuminating learning comprises uncertainty reduction; to support decision making regarding education, I would caveat this (in a way that is consistent with Gardner's wider address, and for example, Yates, 2004, Chapter 1), to note that sometimes the job of research is to increase uncertainty, to destabilise assumptions. In the face of pressure for research to offer direct implications for practice (Blackmore, 2002), this role can be harder to promote (although it clearly does sometimes have direct implications) (Laing et al., 2018). Nevertheless, sometimes the outcome of research and its communication should be to make people pause, to provoke the thought, 'that's more complicated than I thought'.[3]

Disciplining my research

Concretely, the question of whether I am an education researcher arose from two events in 2023 of significance to me. First, I undertook a period of sabbatical, in which my primary concern was how to position research on learning as a significant object of study with respect to AI ethics and the various cross-disciplinary and cross-sector actors involved in that space. That was on the back of spending a significant chunk of 2020 onwards thinking about how to position 'learning' as a serious site for research, both in the formation of a new university research centre (Centre for Research on Education in a Digital Society, CREDS), and in creating collaborative cross-faculty grants and tagging their fields towards success in external funding rounds (described in, Knight et al., in submission). In this work I have been quite explicit in expressing a strategic and practical aim, responding to the sometime marginalisation of my core discipline—education, or research on learning—in the academy and society more broadly. This work has, for example, probed the question: How do we position such that research on learning is taken seriously as a central feature regarding ethical (dis)engagement with AI?

Second, at the end of 2023, within the space of a week I had participated in three different types of event. First as an invited panellist at the annual Australian Association for Research in Education (AARE) conference—a conference I had not previously attended—to speak to Early Career Research (ECR) experience in education as an Australian Research Council Discovery ECR Awardee (ARC DECRA) in the field. Second at the New South Wales (NSW) Department of Education, speaking

[3] The flip side of this is that we must also make visible the labour that goes into uncertainty reduction. It is not unusual to be told "well it's obvious when you put it like that", but as I have reminded people before, it wasn't obvious before it was said (and explained)! This is a challenge for a lot of social science research.

to both my engagement in policy and technology development work, and then third that afternoon at the Australasian Association of Philosophy (AAP) conference, speaking to philosophical concerns of AI in education, and the future of philosophy.

As for many others in education, this reflects my particular disciplinary history: my undergraduate degree was philosophy and psychology, I have a Masters in philosophy of education, in my very brief period as a classroom teacher I taught both philosophy and psychology, and my PhD was in a department focused on semantic computing technologies; but whether by Field of Research (FoR) code, audience, or practice, my core work is in learning and technologies (the focus of my MPhil and PhD). Of course, as any sensible person would, depending on the point I am trying to make I will play up or down my disciplinary mixes; in my contribution to that philosophy panel I introduced myself noting that: 'Here I'm trying to lower expectations regarding my credibility as a philosopher, so I'll say: I am not a philosopher. Although, I'm sometimes described as 'philosophy friendly', perhaps even 'philosopher friendly".

Across challenges the discipline faces, addressing the nature of the discipline is important because of its significance for academic career planning, in which long- and mid-term goals and planning around the kind of academic route one wishes to pursue are significant (Armstrong, 2008). Or, as Khoo notes:

> 'Research planning forces you to think carefully and realistically about where you are at with your research and career, to set goals, and know what you need to do to move towards those goals. It makes you weigh up what's important, what values you want your career to adhere to, and which projects are the ones you'll invest yourself in (versus what you'd do only if it happened to be convenient).' (Khoo, 2017, Sect. 2)

The question of how to plan while balancing aims that are often instrumental, and the desire (and need) for 'useful' work is challenging, and one grappled with in recent AARE contributions (Rudolph et al., 2024).

Of course, planning is an odd concept; it is challenging to plan when outcomes—including job security—are uncertain, and when we are encouraged to be flexible in taking up opportunities such as grants or roles, while also having expert focus. Attending the trio of events confronted me with a kind of outsider status in education (and philosophy, a peripheral home). Nevertheless, it is no accident that I—like many of us—study learning. My background disciplines (philosophy, psychology, learning technologies) were and are rewarding. However, while their core questions and methods can inform my areas of interest, within the disciplines they are not typically applied to the core concerns of learning, and it is these concerns and their implications for society that I have chosen (planned?) to engage with through my research foci.

Addressing the paper's title matters for me, and for the wider discipline. It has practical implications for how people position their work within the Australian 'Fields of Research' (FoR, and specifically the education code: FoR39, previously FoR13). It has reputational implications in terms of how people position with respect to the discipline, and how respected that discipline is. And it has community implications with respect to how people relate to the discipline as a community or

set of communities, and our connections to practice. Fundamentally it matters to the field of education; we are people who have expertise and passion in the study of learning and educational settings. This expertise speaks to many of the challenges we face as a society, yet, research on learning can be marginalised or instrumentalised, for example through research in which educational researchers are involved only in the production of learning content and materials (Lingard, 2001). How might we address this identity challenge?

Disciplines as organisational units with fields of research and metrics

Academic positioning of education

Education has, for some time, had concerns regarding funding from the ARC, which manages the major grant schemes (Cutter-Mackenzie & Renouf, 2017), alongside reflection on the large proportion (~40 to 45%) of education submissions coming from outside education units in the national research evaluation 'Excellence in Research for Australia' (ERA) (Bobis et al., 2013; Cutter-Mackenzie & Renouf, 2017; Seddon et al., 2013), and concern regarding the relatively poorer ERA outcomes from peer assessment of these outputs than via the citation approaches used in other fields (Sullivan, 2022). This has been framed as a challenge to education as a practice-based field (Seddon et al., 2013). Wyse's (Wyse et al., 2021) reflections on the 2014 UK equivalent (the Research Excellence Framework, REF) indicate some similar tensions, regarding evaluation of rigour and impact with respect to close to practice research in education. Goodyear (2013) provides helpful insight into the development of the disciplinary classifications and their application in the ERA process, from 2010, in Australia and the role of the scholarly societies in that:

> 'This process of revising the Australian and New Zealand Standard Research Classification was conducted, for the most part, by junior bureaucrats at the Australian Bureau of Statistics ([ABS] and its New Zealand counterpart). The ABS staff had no involvement in the plans being laid for the first ERA and had little sense that their decisions about categorizing fields of research would have consequences for the assessment of research grant proposals, the ERA or the internal politics of universities. The underpinning logic of the revised ANZSRC (ABS 2008) was that research methodology should play a stronger role than the object of research in clustering sub-fields together. Enactment of this logic in the field of education meant that we 'lost' whole subfields that many saw as part of our core: educational psychology went to psychology, sociology of education to sociology, etc.' (Goodyear, 2013, p. 422)

These points are echoed by Seddon et al. (2013) who also point to tensions in classification of education as methodology in ways that separated the field from its purpose (or socio-economic objective, and SEO code). Although a 2013 AARE and Australian Council of Deans of Education (ACDE) funded assessment (Seddon et al., 2012) was conducted of ERA's impacts and 'the state of Australian educational research post-ERA' (Seddon et al., 2013, p. 437), with a view to strategic

capacity building, there do not appear to be many relevant citations following up the set of 2012–13 works, or on the relevant society websites. Two relevant citations were identified, in a 2020 international report regarding education research (Mertova et al., 2019), and a recent report: 'The growing urgency of attending to the state of Education Research in Australian Higher Education', which drew closer attention to workload challenges academics (who may be in insecure work) face when engaging with research and the limitations of funding systems (Brennan et al., 2020). Further challenges relate to academic incentives and their perverse impact with respect to pressures to publish in *international* and *academic* focused venues, in preference to more localised venues of relevance to practitioners and policy makers (Gill, 2004; Lingard, 2001) (see supplement 1, Knight, 2025, for some discussion of research workload).

A recent BERA report (Morris et al., 2023) of ~ 20% of UK education researchers reflects similar concerns, further reflecting on equity concerns regarding gender, ethnicity, and disability. Notably, concerns are also reflected internationally regarding the gendered status and positioning of teaching as a profession (OECD, 2016).

At the ARC level, in the years 2019–23 DECRAs in FoR 13/39 (Education) projects were awarded 1/8 (5.6%), 1/11 (9.1%), and 2/15 (13.3%) over 2019–21 respectively, overall a 9% success rate, below the field-wide 15% overall rate.[4] Beyond education, the Australian research funding landscape is challenging, and it is particularly concerning that the pathways for early career social science researchers are limited, with no clear postdoctoral pathway in Australia. ARC DECRA success data for 2012–24[5] indicates that in 9 of 12 years STEM fields had a higher success rate, and in all years STEM fields submitted more applications, with 2024 data indicating under a quarter (~ 23%) of successful applications coming from candidates 0–3 years since the award of their PhD (marginally more than the 21.80% beyond 5 years).[6]

Other analysis comes from the literature, and one figure sometimes used in material such as promotion applications regards professorial H-index scores in education, arising from a 2012 analysis of 194 professors' and 217 associate professors' Google Scholar profiles, indicating a median H-index of 11 and 6 respectively (Albion, 2012). Albion's analysis may be outdated, given 2012 is the year Google Scholar started offering profiles and computing h-indexes, with a much later analysis noting that only 50.38% of professors of education sampled for that analysis had a profile (Merga et al., 2020). Despite flaws in the data, that later analysis provides an

[4] See ARC success rates excel file https://www.arc.gov.au/funding-research/funding-outcome/grants-dataset

[5] https://www.arc.gov.au/funding-research/funding-outcome/grants-dataset/trend-visualisation/ncgp-trends-success-rates.

Gender data is also available, which indicates that there are significantly more male applicants than female across schemes https://www.arc.gov.au/funding-research/funding-outcome/grants-dataset/trend-visualisation/ncgp-trends-gender-data-visualisations.

Notably, there are more female than male successful CIs in the '6+' year eligibility window for DECRAs, requiring an eligibility exemption (including for caring responsibilities). (Gender terms are those used by the ARC).

[6] 2024 success rates by gender and 'career age' (years since award of PhD) are available https://www.arc.gov.au/funding-research/funding-outcome/selection-outcome-reports/selection-report-discovery-early-career-researcher-award-2024#-career-age-and-gender See supplement 4 (Knight, 2025).

update indicating a median professorial H-index of 30 (with Q1-4 quartiles 43, 30, 21, 1), across the professors sampled ($n=397$ with a scholar profile, from the United States, United Kingdom and Australia) (Merga et al., 2020). Further original analysis based on Dimensions data indicates that a total of 31,154 authors or co-authors with an Australian affiliation have ever published in education. Of those, 16,628 are currently active authors (>=5 publications and an output since 2021), and 4179 are active in education (i.e.,>=5 outputs in education and an output since 2021), with 5359 ever being 'active' in education (>=5 outputs ever). Subtracting year of first publication from most recent provides a proxy for seniority or career length, with career length quartiles for active researchers in FoR39 of Q1=11 ($n=1191$), Q2=16 ($n=919$), Q3=24 ($n=1039$), Q4=102[7] ($n=1030$) years. Computing a h-index of authors active in education, based on all their outputs, only outputs in education, and only outputs not in education indicates variation across these numbers suggesting a lower citation pattern for education outputs across career lengths, offering more granularity than prior analysis(Fig. 1 and Table 1, see supplement 2, Knight, 2025, for details).

What does all this tell us? Not a lot, the process of seeking to analyse the data reveals the significant deficits in this data, alongside large variation related both to discipline labels and bibliometric data sources, as well as analytic choices. Complicating matters further, the 'concept' labels applied to papers draws from historic Microsoft Academic Graph data, which itself was grounded in semantic web data largely from Wikipedia and its sister projects, and while the ERA and Dimensions processes for labelling FoR codes differ, neither is transparent. Other work prompted my reflection on how data from open sources such as Wikipedia is adopted/adapted into other contexts in ways that are often opaque (Knight et al., 2023a, 2023b, 2023c), highlighting the significance of 'available' (i.e., datafied) representations of our work. Without representations (often in Wikipedia) of the concepts we work with, our outputs may not be appropriately labelled by concept-labelling algorithms used in many platforms; that realisation prompted me to create and write the first iteration of the 'epistemic cognition' Wikipedia article and Wikidata items in 2022.

Academic positioning…of me?

These oddities in the positioning of education research are something I relate to. I arrived in Australia in 2015, prior to the closing of the Office of Learning and Teaching (OLT) with its associated grant scheme. I joined a team working on learning and technology with a particular remit to support the university's own innovative practice. From there I moved in 2018 into the Faculty of Transdisciplinary Innovation (then renamed Transdisciplinary School, with a pitstop along the way at the abbreviation, TD School). When I was teaching, it was in areas centring societal and human concerns in data science; learning was relevant, but not core. Perhaps because of my administrative unit, I have been able to collaborate

[7] 102 is a data error, it is likely there are other data errors in the dataset (relating to first or/and last publication date, etc.). No correction has been applied to the data, and this reflects just one challenge of working with—and benchmarking from—this kind of data.

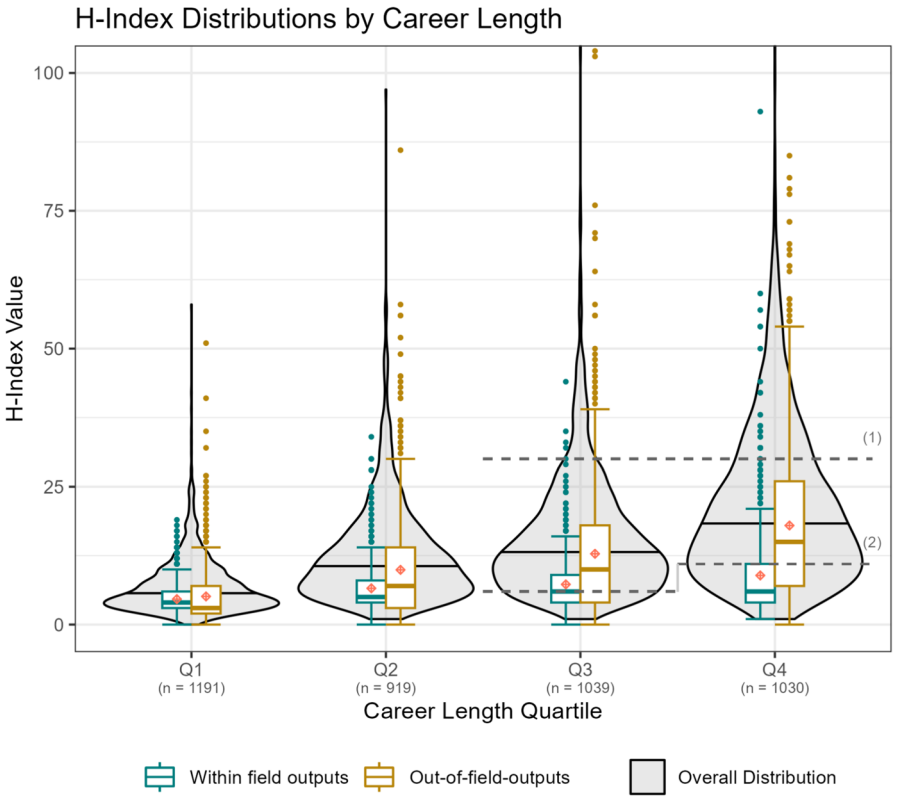

Fig. 1 H-index distributions by career length quartiles

with colleagues in almost every faculty, bringing a focus on learning and technology. While learning is certainly central to transdisciplinarity (e.g., Mitchell et al., 2015; Pennington et al., 2013), and much of the excellent work my colleagues do, I am not in a Faculty of Education, and indeed the university's School of Education merged sometime since my arrival in Australia to become the School of International Studies and Education (SoISE) as far as I understand largely for reasons of administrative scale. It has recently become part of an as yet unnamed faculty, launched without a name, with the intent to promote the 'creative industries', with no clear narrative for the positioning of education (or other social disciplines) at the time of writing.

Academic positioning of disciplines matters in multiple complex ways, both in establishing esteem and corresponding resourcing for fields, and then also in establishing benchmarks academics may be expected to meet in often very diverse fields of research. The ERA data is used in this context, both for grants and progression

Table 1 H-index distributions by career length quartiles, descriptive statistics

	Q	N	H-index FoR 39 mean	H-index FoR non-39 mean	H-index overall mean	H-index FoR 39 median	H-index FoR non-39 median	H-index overall median	H-index FoR 39 SD	H-index FoR non-39 SD	H-index overall SD
Q1	11	1191	4.61	5.10	7.09	4	3	6	2.67	5.34	5.26
Q2	16	919	6.58	9.92	12.78	5	7	10	4.26	9.64	9.25
Q3	24	1039	7.29	12.78	15.91	6	10	13	4.84	12.35	11.79
Q4	102	1030	8.91	17.97	21.56	6	15	18	7.69	15.09	15.21
NA	–	26,975	1.4	4.1	3.0	1	2	2	1.4	4.9	4.0

*Table reports H-indices for publications labelled within FoR39, in other fields, and overall, for researchers active in FoR39, by career length quartile. Q values report the quartile cut (Q1-Q4) for career length

or promotion applications, but the suitability of this data is unclear particularly for academics whose research may be in education while their organisation unit is not. Indeed, this is a common problem in my faculty where colleagues generally have to pick a number of FoR benchmarks from their home disciplines, in ways that often do not reflect their current transdisciplinary home. I have been fortunate in this context, as one of three ARC DECRAs awarded in 2023 in education (against the 9% field success rate). Practically, in a recent analysis of submissions to a parliamentary inquiry on AI in education (Knight et al., 2023a, 2023b, 2023c), my co-authors and I flag that while the ARC's inquiry submission noted the significant investment into AI research made, our analysis indicated that across all schemes Humanities and Social Science disciplines[8] accounted for only ~ 27% of projects that mention 'artificial intelligence' in any way, and with a lower average dollar funding (without controlling for grant scheme). Given the significance of AI for and in Humanities and Social Science disciplines, including education, this disparity seems surprising. Navigating benchmarking of in- and out-of-field research and its outputs remains a challenge for disciplines, and individual researchers. This benchmarking is a particular concern in the context of a precarious workforce in which 'research opportunity'—i.e., the time to engage in and with research, including writing up research—can be limited, or hampered by contracts that leave people uncertain if or what they may be teaching semester-to-semester (two issues I have been privileged to largely avoid).

Disciplines as communities of researchers in Australia? (Or, linked ecologies)

Where does research on learning happen?

Beyond disciplines as areas with adherence to shared structures, or the academic structures that this may be articulated in, disciplines can also be thought of in terms of linked ecologies. Abbott (2005) uses this concept of linked ecologies as a way to understand university disciplines and their relationship to professions, understanding disciplines with respect to networks of actors, those within the academy, and external stakeholder groups.

Education is perhaps unique in its diversity of professional *and* disciplinary backgrounds. While other fields comprise many researchers with professional backgrounds in the area, such as nursing, it is likely most of these researchers hold related disciplinary and professional backgrounds. Education researchers may come from a professional context, including but not limited to school, vocational, or other

[8] As we noted in that piece: The 2-digit FoR codes included in HASS, where those < 30 are in the 2008 classification and > 29 in the 2020 classification: 12,13,14,15,16,17,18,19,20,21,22,33,35,36,38,39,43,44, 45,47,48,50,52. This list is consistent with the Academy of Social Sciences list https://socialsciences.org.au/social-science-fields-of-research/ except with the addition of 'Creative Arts and Writing' (FoR 36), and removing 'Health Sciences' (FoR 42). Including health sciences increases the count to 33% of projects, the mean funding amount is ~ 804/836k for non-HASS disciplines, and ~ 585/562k HASS (excluding/including health sciences in HASS respectively).

teaching backgrounds. But, distinctively, these researchers may vary widely in disciplinary background, including the social and natural sciences, and that is also true of those who come directly from that disciplinary training into education research (Gardner, 2011; Lingard & Gale, 2010). A further consequence of this disciplinary context is that the methods drawn on in educational research are often '"borrowed" from these various traditional disciplines, though the extent to which they remain linked to them is open to question' (Gardner, 2011, p. 545).

Disciplinary membership can be seen as bound up with communities of scholars, including through learned societies and representation of those in scholarly academies (of the social sciences, in the case of education). The American, Australian, British, and World education research associations (of various names) are around 100 years old (Wyse, 2020), at a broad level (including AARE), with a large number of other societies linked to educational research, or applying a disciplinary research base to the context of education.[9] In the Australian context, AARE had 976 members as of June 2023 (AARE, 2023), having started in 1971 with 156 members (Bessant & Holbrook, 1995, p. 45), growing to 630 by 1984 (Bessant & Holbrook, 1995, p. 73).

These scholarly associations interact with professions in dynamic 'linked ecologies' (Abbott, 2005), through which boundaries and legitimacy of scholarly and professional knowledge is established and disrupted. In Australia one site of this interaction is among learned societies, including AARE (Gill, 2004) and the peak body the Academy of the Social Sciences in Australia (ASSA), comprising elected fellows (700) from across the represented disciplines. Education is represented rather poorly in this grouping with 31 fellows, 19 men and 12 women, at least half of whom are emeritus. History and archaeology, in contrast, has significantly more fellows ($n=79$), from disciplines not typically under the banner of social sciences, and that are the only other discipline also represented in the Australian Academy of the Humanities discipline groupings. Recent joint initiatives to create a decadal plan for future directions in educational research (ASSA & AARE, 2024), and addressing sustainability education (ASSA, 2023) may offer promising directions for the field's representation within the social sciences.

Fellowship figures might be compared to the broader context of increasing university enrolments, with education as the fifth most common area of education for those studying for non-school qualifications (at 7.8%[10]). Notably, of the 37 public university member organisations of the Australian Council of Deans of Education with organisational units delivering education courses, all have a significant

[9] HERDSA provides a helpful list of organisations, largely falling into the former category, here https://www.herdsa.org.au/educational-organisations-within-australia (although it is not particularly helpful to include TEQSA here). In the latter category, I would count organisations such as the Australian Psychological Society, Division of Psychological Research, Education and Training, among many other examples. This of course excludes regional and global international organisations, many of which have strong membership from Australia.

[10] https://www.abs.gov.au/statistics/people/education.

proportion of graduates in non-teacher education programs. Despite this, ACDE's association objectives,[11] focus largely on teacher education:

(a) To lead debates on the education and professional development of pre-service teachers, teachers, educators and leaders across all sectors of Education.
(b) To lead the development of the discipline of education through political advocacy, stakeholder collaboration, policy critique, and applied and basic research.
(c) To advocate the professional interests of Deans of Education and education leaders working in Faculties of Education.

This framing is all the more peculiar given that only 13 are organisational units at a Faculty level that is not subsumed under some other organisational unit (with 21 units having an organisational lead with the title 'Dean', see supplement 3 Knight, 2025, for detail). This subsuming of education into broader disciplinary groupings has consequences for the representation of the discipline at institutional and sector levels, and leaves education that is not initial teacher education without representation in some contexts.

Postgraduate research completions similarly reflect a significant proportion of students in the broad field of education, with in 2022 approximately 5.6% ($n=505$) postgraduate research completions were in education, from a total of 11,023,[12] which represents a significant increase in overall doctorates awarded since 2000 ($n=3933$). Common with other fields, many with doctoral level training will not work in university research environments, with about 25% of PhDs in all fields remaining in university research environments (McCarthy & Wienk, 2019; Neumann & Tan, 2011; Ta et al., 2023).[13] For some, they will be undertaking research in non-university environments, others may draw on their research knowledge in more or less direct ways. Indeed state Departments of Education are one of the 'top 50' employers of PhDs in Australia (McCarthy & Wienk, 2019), and many schools will employ teachers with PhDs (whether in education, their core discipline, or another area altogether).

Beyond these contexts, recent shifts in policy, and the emergence of new structures such as 'what works' centres (Slavin, 2004), have had implications for the locus of expertise on education and learning internationally (Furlong & Whitty, 2017). Indeed, these questions similarly abound in practice contexts with significant discourse regarding the use of guidelines to support evidence use (Sharples et al., 2018), engagement of pre-service and in-service teachers with evidence (see, for example, Earl & Timperley, 2009; Mills et al., 2021), and concern for quality of evidence *use* (rather than quality of evidence) (Rickinson et al., 2022). Common

[11] https://www.acde.edu.au/wp-content/uploads/2025/01/acde-constitution-approved-31-october-2024.pdf.

[12] https://www.education.gov.au/higher-education-statistics/resources/2022-section-2-all-students.

[13] I did make a brief attempt to explore trajectories of fields of education from undergraduate to graduate and into funding outcomes; a peculiarity of the data is that the Fields of Education do not neatly align with Fields of Research, nor is data linked to them published at the granular level that might facilitate such comparison.

models for disseminating 'what works' or directing practice through policy mandates have been criticised, both with respect to concern for teacher expertise and autonomy, and with respect to the evidence underpinning the approaches (for example, Biesta, 2007; Hempenstall, 2014; Wrigley & McCusker, 2019). A corresponding broadening in understanding of where education and learning occurs—beyond public institutions including schools and universities—is also seen, but largely without increased access to funding (Gill, 2004). Tensions in this space have thus included sometimes controversial, or at least challenging, criticism or/and politicisation of educational research (Baumfield, 2023; Holbrook et al., 2000; Yates, 2004; particularly from a poststructuralist perspective, Humes & Bryce, 2003; Lingard & Gale, 2007; Peters & Humes, 2003).

Education as a field is linked to other disciplines, and thus practice concerns, in distinctive ways. Some, but not all, of these questions are paralleled in areas including the philosophy of education. Two ways of thinking about linked disciplines in this context are as *branches* or *applied areas* of a field. Thus philosophy of education as a *branch* of philosophy would deal with the part of philosophy relating to education, or as an *applied* field would take the matter of philosophy and consider its implications in education (Standish, 2019). While Standish notes these approaches—which he rejects—in relation to philosophy of education, the same arguments for areas of educational research to be considered as *branches* or *applied* areas could be taken up for other areas such as sociology. But this view is problematic, because, again as noted by Standish, it instrumentalises these areas (in service of parent disciplines or/and areas of application), alongside adopting a problematic theory–practice distinction that fails to recognise the distinctive ways in which disciplines—philosophy of education, but education more broadly too—fundamentally entwine theory and practice.

Where does my research happen?

As individuals our research trajectories often speak to or reflect linked ecologies. In my case, I went from a degree in philosophy and psychology with the idea that I wanted to become an educational psychologist, at that time a PhD path in the United Kingdom requiring at least two years schools experience. My interest was primarily how systems might support learning, and I realised fairly quickly educational psychologists—much as they do valuable work—do not typically work at that systemic level. I did train to teach, gaining Qualified Teacher Status (QTS) in England and Wales (no one ever seems to care that I also have a higher education teaching qualification). Credentialing and legitimacy around work in education are tangled up with that status; I have been in conversations where people who've 'never set foot in a classroom' (as *teachers*), or haven't recently enough, are criticised as though speaking to any issue of learning requires one to remain in a particular form of learning environment and role. These colleagues sometimes refer to education solely as initial teacher education, as though that were the only function of faculties and schools of education. Correspondingly it's hard to ignore tensions regarding the

role of education academics, teacher educators, and other actors in education, with frequent—and not always constructive—critique across actors.

When people ask what I do, I generally say I do research on learning and technologies, or/and that I teach subjects around data literacy and critical thinking. Some people follow up with 'ok, but what faculty is that in?', and I think I've become good at allaying the look of despair in response to 'Transdisciplinary School' (something like: 'we bring together knowledge across (1) different disciplines and (2) people in practical contexts like teachers, to do research that addresses their challenges'). Not being in education, it might seem relatively easy to 'step away', indeed perhaps particularly so given the increasing scarcity of *faculties* of education as independent organisational units. Certainly, it's hard to imagine a researcher applying for ARC funding for education research in Australia has not at some point received the advice to avoid the education FoR codes. Indeed, for some colleagues this may be easier, with education acting as a site for data or the building of tools to be applied in education, or the institutional structures of education, rather than a core concern of the intellectual contributions being made. A particular privilege of the work I am currently doing is being able to collaborate with practising teachers—including a number with PhDs—in ways that are mutually informative in building practice and theory.

Learning is the central feature for me, and I am here relatively deliberately. Venues (journals and conferences) are a key concern in addressing how to express this focus, insofar as venues are one actor in relation to communities of scholars. It has been unfortunate in some recent experience that some venues purporting to be interdisciplinary in nature have declined work on the basis that its focus was too education-focused (funny sort of interdisciplinary). In one case, this took the form of suggesting that there was too great a framing on educational ethics in work regarding how cases of AI incidents might (or might not) support learning regarding AI ethics (now published, Knight et al., 2025).

Across 2023–24 I gave a set of talks framing *learning* as a central feature in (dis) engaging ethically with AI. In those talks I highlighted at least three ways in which learning is central to such (dis)engagement. First—and most instrumentally—simply because education and learning are one place in which AI will almost certainly have impact, both with respect to what people will learn about (learning about AI), and how they will learn (learning with AI). Second, and perhaps more interesting, in learning about the ethics of AI and its uses, issues to which extant research in learning provides rich insight regarding, for example, case-based learning. And finally, because ethical AI is contingent on learning; *learning* underpins providing *informed* consent, *understanding* what the explainable (and hopefully, explained) AI is doing, *participating* meaningfully in co-design of AI tools that address problems that matter to people.

My invitation in those talks, and in this piece, is that those engaged in research on learning should be unashamedly ambitious in this framing. When education is brought into a project (if it is) there can be a temptation for it to be instrumentalised, to 'merely' be about providing resources for some educational program or policy; our expertise is broader than this, and many challenges—including critical

evaluation of educational programs and policies—would benefit from a greater attention to research on *learning*.

Conclusion

Disciplines are important to researchers. They allow for a shared knowledge base and purpose; structural resource for developing careers and working towards trajectories of research; and communities of scholars through which disciplinary capacity can be developed, and the discipline be advanced, critiqued, and shaped. Challenges in this space are not unique to education, however education research globally, and certainly in Australia, has historical and present-day challenges in how it is conceived of as a discipline. This presents challenges both for the core and periphery or boundaries of the discipline. The concepts and methods we work across and with as discipline experts ground the rigour of our work, and how we achieve impact. In education, tensions in navigating this space present particular challenges given a social and funding environment in which it can be challenging to develop strategic fundamental research trajectories, or to conduct impact-oriented work that is not simply instrumentalised. Features of the research landscape including the exclusion of social sciences in the R&D tax credit, and historic research priorities, can serve to de-emphasise disciplines such as education as making an important contribution to broad ranging research; this is a site for discipline-based advocacy (see, e.g., Knight et al., 2023c).

At an organisational level, the ACDE has a narrow focus on teacher education, despite the fact that many of those represented likely do not work in such programs (and indeed, many who do work on education research may not be in education). The association objectives could be amended to reflect this, and to reflect that education research occurs outside 'Faculties of Education' (an organisational unit that is increasingly meaningless). Where people are working within education, this paper has tried to provide updated analysis for purposes such as benchmarking (although acknowledging the absurdity of many of these exercises).

Insofar as this kind of reflection might lead to recommendations, the overarching recommendation is that as a discipline we should be ambitious in framing the significance of research on learning for understanding many of our most pressing challenges as a society (in both fundamental, and more applied research); the corollary to this is that we should be generous in interpreting and critiquing other's work and contributions. This may be particularly important for early career researchers who may face particular challenges in situating themselves in a context of high levels of insecure employment, and challenges in the framing of education units. A similar suggestion might be drawn for venues and units that frame their work around multi-, inter-, or trans-disciplinarity; learning plays a crucial role in this space, and should be a core consideration.

How we understand the discipline of education is contested and unstable. Addressing that does not require *resolving* these tensions, but awareness and

consideration of the space(s) the discipline works in and across is important for how the discipline is framed and positioned institutionally and for individuals.

Supplements

Supplements are available via (Knight, 2025): (1) Research workload detail; (2) Field based bibliometrics scripts; (3) ACDE member organisational structures; (4) DECRA outcome data. Supplementary analysis was informed by prior research regarding researchwork loads (Aczel et al., 2021; Barnett et al., 2015; Callaghan, 2016; Heffernan and Smithers, 2025; Herbert et al., 2013a, b; 2014; Jamali and Abbasi, 2023; Kwee et al., 2023; Mewburn, 2018; O'Meara et al., 2017; Song et al., 2013; Tenopir et al., 2015; vanden Besselaar and Sandström, 2016; Vossen, 2017; Weisshaar, 2017).

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Ethical approval The manuscript does not report original empirical work that would require oversight of a research ethics committee, or participant consent.

Confirmation The submitted work is original and has not been published elsewhere in any form or language (partially or in full). The manuscript has not been published via any pre-print or similar server. The results are presented clearly, honestly, and without fabrication, falsification or inappropriate data manipulation (including image based manipulation). I have seen, read, and understood the [Ethical Responsibilities of Authors and Authorship Principles] (https://www.springer.com/journal/13384/submission-guidelines).

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