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COVID-19 and doctoral education in Australia

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ABSTRACT

This article considers issues that continue to shape doctoral education in Australia in the wake of the COVID-19 pandemic. The aim of this paper is to provide an overview of relevant issue, and to identify opportunities for future research. It describes examples of responses taken at an institutional level, and their implications for the norms and practices associated with postgraduate research, supervision and candidate support. Comments from discussions with a small number of Australian Deans of Graduate Research are used to illustrate the challenges faced, and the responses taken. The article provides a concise outline of the policy and historical context for these responses, and concludes by considering some of the issues that continue to shape doctoral education in Australia today. It highlights the rise of location-independent graduate research and the prospect of generational change in the higher education workforce as significant factors in the wake of the COVID-19 pandemic, and as potentially fruitful avenues for future research.

KEYWORDS

Doctoral education;
postgraduate research;
Australia

Introduction

The COVID-19 pandemic had an immediate and direct impact on postgraduate research in Australia. Public health responses to the pandemic highlighted the global and connected nature of doctoral research. Travel was suspended, gatherings prohibited and, in some areas, curfews imposed. Fieldwork was curtailed, laboratories closed and conferences cancelled. International research students across the globe had to find their way home, at very short notice. Not all of them were able to do so before travel restrictions were imposed, leaving many postgraduate researchers stranded. The immediate priority, from an institutional perspective, was getting researchers home safely. Institutions were then faced with ensuring the welfare of candidates and staff, wherever they were located. Candidate development, supervision and peer activities became reliant on platforms for virtual communication. Subsequent responses included initiatives for extending the duration of candidature and stipend support. These drivers of change, and the responses to them, were not unique to Australia. However, some of these changes were particularly salient in an Australian context, and marked a new milestone in the development of research education.

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The first milestone was the amalgamation during the 1980s of Colleges of Advanced Education into universities as part of what would become known as Australia's *Unified National System* (Gamage, 1993). The second was at the turn of the millennium with the implementation of the *Research Training Scheme* (RTS), following the West and Kemp reviews (Kemp, 1999a, 1999b; West, 1998). The third was towards the end of the 2010s, with the adaptation of the RTS into the *Research Training Program*, accompanied by imperatives for greater industry engagement in postgraduate research (McGagh et al., 2016). The fourth was COVID-19. Each of these milestones has led to a shift in the expectations and aspirations for research training in Australia (Kiley, 2011; Palmer, 2013). They have marked a shift in emphasis regarding participation, completion and employability respectively. The lasting implications of this most recent milestone for Australian research education are only now beginning to take shape. The following outlines some of the issues that have emerged as students, supervisors and institutions have responded to the changes following from the COVID-19 pandemic.

COVID-19 in Australia

COVID-19 arrived in Australia on the heels of some of the country's most devastating bushfires (Borchers Arriagada et al., 2020; Jetten et al., 2021). Australian Federal and State governments moved to suppress transmission of the virus by prohibiting gatherings and restricting travel. Universities and research institutes were closed, with their activities moved online wherever possible. The majority of the population in Australia were confined to their local neighbourhood, with work (and school) conducted from home. Rules for gatherings and travel varied by Australian state and territory, with restrictions remaining in place substantially longer in some places than others. Western Australia, for example, was able to restrict transmission of the virus through implementing a 'hard border' with other states (Stobart & Duckett, 2021). Other states relied on blanket restrictions, with Melbourne surpassing Buenos Aires in October 2021 as the world's most 'locked down' city (Macreadie, 2022).

Australia's international borders remained firmly closed for two years, save for those Australian citizens still able to return home, from the 20th of March 2020 to the 21st of February 2022. Among the most immediate implications of the pandemic on higher education was its impact on the enrolment of international students (IDP Connect, 2020). With education being the fourth largest national export, supporting close to 250,000 jobs as of 2019, the implications for Australian universities soon became obvious. Projections for the shortfall in university revenues were dire, ranging from \$3.1 to \$4.8 billion (AUD) (Universities Australia, 2020). It soon became clear that staff cuts would feature among attempts to address this shortfall. Casually employed staff were the first to feel the impact of these in the early days of the pandemic, with many postgraduates reliant on income from sessional teaching. Fixed-term and continuing academic and professional staff were next, with total employment in tertiary education falling by an estimated 40,000 in the first half of 2021 (Littleton & Stanford, 2021). The interaction between a potential rise in location-independent study and the newly revised pre and post graduate work rights and student visa provisions for international students in Australia (Tran et al., 2022) remains to be seen. The economic impact of the pandemic following the disruption of international education had both immediate and, potentially, lasting implications for candidates, supervisors and institutions in Australian higher education.

Impact on postgraduate research

Emerging reports on the impact of the pandemic on higher education from around the world already show a relatively consistent set of responses to common challenges (Krause, 2022; C. R. Kumar et al., 2022). In the case of graduate research, these include a variety of strategies for supporting students, and for the conduct of location-independent research (Álvarez et al., 2021). The impact of the pandemic brought an immediate focus on candidate support, along with strategies for enhancing student wellbeing (Alsandor & Yilmazli Trout, 2020; Haas et al., 2020; Sverdlik et al., 2022). This impact had follow-on implications for strategic responses around enrolments and candidature (Smith McGloin & Wynne, 2022), and for extending financial support for candidates (Johnson et al., 2020). New strategies were developed for online mentoring (Mullen, 2022; Pollard & Kumar, 2021), community building (Webber et al., 2022), and online supervision (Guerin & Aitchison, 2021; S. Kumar et al., 2020). The pandemic has given greater salience to particular aspects of postgraduate research in Australia. Institutions, supervisors and candidates have had to explore different ways of investigating, engaging and connecting. While ‘distance education’ has become the norm, with substantial efforts being invested in new strategies for better support for both supervisors and student, the longevity of recent changes to the norms and practices around doctoral education remains open to question. In preparing this article, in order to help develop a preliminary view of the issues typically faced and responses taken by institutions in response to the impact of COVID-19 in 2022, one of the authors undertook a series of short discussions with a small number of Australian deans of graduate research. The study employed unstructured interviews to inform a general overview of issues in graduate education that arose in the course of the COVID-19 pandemic, and of common strategies and initiatives implemented in response. The research did not aim to provide a representative survey of institutions, nor an exhaustive catalogue of issues in graduate education relevant to the COVID-19 pandemic. Comments from the discussions have been used in the article to highlight selected issues of common significance, and opportunities for future research.

Location-independent graduate research

The closure of Australia’s borders at the beginning of the 2020 academic year posed an immediate problem for commencing postgraduate researchers, along with those returning from the summer break. Domestic travel restrictions and university closures in many parts of Australia led to students and staff working remotely, often for extended periods. While some found these arrangements workable, others struggled. Dean #1 emphasised limited accommodation at home, access to technology, parenting responsibilities, and home-schooling responsibilities as challenges. Many new and continuing candidates were stranded either offshore or across state borders, often with limited access to facilities. Some were able to progress their research, with regular supervisory meetings online soon becoming the norm. These arrangements highlighted related factors in graduate research, including the ‘immersion’ effect on language proficiency that is often taken for granted as part of the onshore international education experience (Gomes, 2020). As Dean #4 commented, there were reports of some international candidates having difficulty maintaining their levels of

English language where they remained situated in non-English speaking environments.

Restrictions both domestic and international made travel for fieldwork difficult or impossible. Several deans described how laboratory-based research had also come to a halt where candidates were unable to return, even when facilities were reopened. Dean #4 recounted one example of recruiting the help of lab assistants in coordinating experiments, and then organising for the results to be sent to the candidate for analysis, to help ensure they could progress their research.

Supervision

Distance supervision has a fairly well-established precedent in Australia (Evans, 1995; Evans et al., 2004; Macauley & Cavanagh, 2001). The implications following from the pandemic, however, highlighted the role that innovations in communication technology might play in supervisory practices going forward. The term 'online' was raised consistently by the Deans consulted for this article. For some, it meant offering programmes wholly online (Dean #1). For others, it meant an interim solution, particularly for those 'stuck' in different locations (Dean #4). Several deans indicated concern about distance supervision, and about preserving a sense of immediacy in the absence of in-person meetings. This was particularly the case among universities emphasising the quality of their 'on campus experience'. Other deans were more optimistic regarding distance supervision, with Dean #6 reporting positive feedback from both supervisors and candidates regarding the uses of improved means for virtual communication. There was also evidence of these technologies having a collegial effect, with Dean #3 describing how group supervisory sessions over Zoom were able to convey a sense that students and supervisors alike were 'all in the same boat' in regard to some of the challenges they faced.

Enrolments and candidature

Participation in graduate education in Australia is often seen through the lens of research journey or candidature management 'lifecycle' (Kearns, 2016; McCulloch, 2013). It quickly became clear that the pandemic was going to pose more than a minor interruption to this journey for many candidates (Beasy et al., 2021). Several deans consulted for this article indicated their institution had responded by extending either candidature duration (i.e. the duration of subsidised tuition subsidy) (Dean #1) or stipend support (Dean #5), and in some cases both. Despite these measures, there were reports of increased attrition as the result of the pandemic, particularly among domestic part-time candidates (Dean #6). Deans also reported a significant administrative strain in supporting graduate research. The difficulties faced in responding to unexpected contingencies were exacerbated by the challenges of working remotely, limited resources, and staffing cuts.

Researcher development

Many candidates had to substantially revise their topic, methodology or data collection strategy due to constraints imposed by the pandemic. Dean #2 commented that many supervisors had trouble in helping candidates redesign their research topic. Dean #6 reported their graduate school ran online workshops for candidates to help them refocus their research, along with a special fund from which candidates could seek financial assistance for any additional costs incurred.

Academic engagement opportunities were also raised as an area of concern. Prominent among these considerations was the cancellation of academic conferences, and their transition to online participation. On the one hand, this was a boon for Australian candidates who soon found they could easily attend virtual conferences around the world that would otherwise require significant cost and time in travelling on international long-haul flights. On the other hand, however, there was concern that in doing so candidates would be denied more 'ad-hoc' opportunities for networking and engagement in their field. These concerns extended to the loss of similar opportunities on-campus, with Dean #3 reporting they had been considering virtual strategies that could somehow replicate 'bumping into someone' on campus.

Thesis examination

The Australian Qualifications Framework (AQF) sets the standard for research doctoral degrees in Australia. These standards include the examination of a dissertation or thesis by at least two expert examiners of international standing (AQFC, 2013). Some institutions reported greater difficulty in recruiting examiners during the pandemic, with academics around the world coping with similar pressures. Supervisors found they needed to approach a greater number of prospective examiners than in the past. Some attributed this to the impact of staff cuts and early retirements at other institutions. Dean #2 indicated that examiner reports, when they came back, tended to be tougher than they had been in past. It was suggested that this may have been attributable to the involvement of less-experienced examiners. On the other hand, Dean #1 found examiners to be more generous in their evaluation, acknowledging the challenges faced by candidates in such difficult times.

The trend towards introducing an oral or *viva voce* examination is slowly gaining momentum among Australian universities. The model being adopted is in some cases comparable to that found in New Zealand (Kiley, 2009; Kiley et al., 2018). Face-to-face research degree examinations have historically been rare in Australia, given the time, cost and logistical arrangements needed to ensure international examiners are able to attend in person. The 'normalisation' of virtual communication platforms for comparable examinations internationally may have significant implications for the potential uptake of this practice in Australia.

Conclusion

The idea of a 'new normal' featured among the catchphrases associated with the COVID-19 pandemic. Its impact has led to substantial changes in the way institutions engage and support candidates. Many changes were made from necessity, as a matter of urgency. Looking back at those responses, we have an opportunity to consider which of them were specific to the time, and which might usefully endure as features of doctoral education looking ahead. Many, perhaps most may have occurred anyway, with the pandemic serving as a catalyst for changing circumstances, norms and practices in a variety of ways. The most obvious of these is the influence of innovations in communications technology. These innovations now shape almost every aspect of graduate research, from the way institutions engage and recruit candidates, through to the way research is conducted, to graduation, and beyond. Platforms like Zoom now serve a wide range of administrative, training and collaborative purposes. The pandemic has prompted an extraordinary transformation in the norms and practices around university teaching, research and administration. This transformation has implications for building supervisory panels and conducting fieldwork. It also has substantial implications for traditional programme requirements, including those for residency and on-campus attendance. The effective use of platforms for virtual communication led some deans to revisit the idea of fully online PhDs, even for those institutions who pride themselves on the quality of their 'on-campus' experience. Once considered a niche consideration for specialist programmes, 'distance education' has, in many respects, become the norm, even for locally based candidates.

Another implication of the pandemic is the realisation that a fair proportion of graduate researchers were *already* 'location independent' prior to its onset. This dependency was more common in the humanities and social science than for disciplines characterised by lab-based inquiry, or for research that is otherwise resource intensive. Even so, the pandemic highlighted the distributed nature of research, and of patterns in research collaboration more broadly. Further implications following from a greater emphasis on location-independent research may include an expanded range of opportunities for inter-institutional collaboration available to candidates and schools of graduate research. This may also lead to increased competition for qualified candidates, with institutions invested in supporting location-independent research able to draw on a larger pool of prospective candidates.

Finally, perhaps one of the most profound changes arising from the pandemic may be the wave of early retirements and staffing cuts evident among Australian universities. In 2005, Graham Hugo warned of a demographic 'time bomb' facing Australia's universities, and of a 'lost generation' in Australia's academic workforce (Hugo, 2005a, 2005b, 2005c). Hugo's predictions were overlooked when an obvious crisis failed to materialise by the mid-2010s. Looking back, Hugo's modelling now has an immediate salience. The implications for Australian higher education broadly are likely to be profound. In the context of graduate research, the lack of seasoned expertise is already becoming evident. Experienced examiners are harder to find. Experienced supervisors are under pressure to take on an ever-greater number of candidates. Many early-career researchers have found themselves without the support and advice of their more experienced colleagues. Many candidates saw at least one and sometimes all of their supervisors opt for retirement in the course of the pandemic, with some fortunate enough to benefit from continued support and advice.

Looking ahead, the changes in doctoral education described above are significant from an Australian perspective. The prospect of greater opportunities arising from the normalisation of location-independent graduate research has particular salience in a country accustomed to ‘the tyranny of distance’ (Blainey, 1966). Enthusiasm for these opportunities will be tempered by what we have learned about the health and wellbeing of both staff and students, by a better awareness of what is gained and what is lost where candidates conduct research remotely, and by the loss of experience and expertise that we are only now becoming aware of as a result of the COVID-19 pandemic. In time, these developments may prove to be important milestones in the continued development of postgraduate research in Australia. They may also prove to be important milestones in the ongoing development of graduate research internationally.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Nigel Palmer is a recent doctoral graduate from the Australian National University. His PhD was on the definition and measurement of quality in graduate education.

Margaret Kiley's research and teaching interests have been related to doctoral education. Margaret holds an adjunct position at the Australian National University.

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