

The Australian higher education student experience: A personal reflection on 15 years of research

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The evolution of the Australian higher education sector began with the reforms created through the unified national system in the late 1980s. Since that new policy direction Australian higher education has come of age in terms of attracting international students and widening participation in attending university. This review of the outcomes of 15 years of research identified 4 themes: student experience, interplay of research and teaching in undergraduate curriculum, monitoring and evaluating student learning, and engaging academics to engage students. As the sector confronts funding cuts to universities and the loss of supportive government agencies the review concludes there will be challenges facing those interested in rigorous and research-informed policy related to the future of the student experience.

Keywords: student experience; teaching quality; undergraduate curriculum.

I. Introduction

In 2015 Australian higher education marked the significant milestone of 25 years of the unified national system of higher education. Over a quarter of a decade since the 1987 Dawkins reforms the number of students in Australia's higher education system rose from just under 400,000 to over 1.22 million—an increase of 200%. This period of rapid growth will be remembered as a period characterised by two key vectors of student growth: one resulting from massification and widening access on the

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domestic front; and the other resulting from exponential growth in international student enrolments.

Over the last 25 years, Australian higher education has arguably witnessed a coming of age in terms of its capacity to compete for students and status on the global stage. At the same time, heightened attention has been given to the need for universities to engage more closely with industry—not only in the area of research partnerships, but importantly, with respect to preparing a future workforce that is both job- and career ready. With both developments have come the need to demonstrate ways in which the quality and standards of our higher education offerings are monitored and assured.

All of these developments have provided a fertile research environment in which to pose questions—from the perspective of both policy and practice—about the implications for the undergraduate student experience in higher education. This review paper starts with a brief overview of the evolution of Australian higher education in the period since the Dawkins reforms in the late 1980s. The paper also reflects on a string of national initiatives designed to recognise and promote quality and excellence in learning and teaching over the past 25 years, ranging from the Committee for the Advancement of University Teaching in the early 1990s to the recently de-funded federal government Office for Learning and Teaching (2012-2016).

The historical overview at the start of the paper sets the context for examining four key themes evident in my research over the past 15 years, along with theoretical underpinnings and conceptual frameworks informing that research over time. It is also useful to reflect on how externally funded projects in which I have been involved over the past decade reflect government policy imperatives that have shaped the Australian higher education sector during this period. The paper concludes with reflections on the future of higher education student experience research over the next 15 years.

2. Contextualising 15 years of student experience research

To appreciate the factors shaping higher education student experience research in Australia over the past two decades it is important to consider some of the changes characterising the Australian higher education sector since the Dawkins reforms which heralded the unified national system of higher education in the late 1980s. Figure 1 demonstrates the exponential



sector-wide growth in student numbers, particularly since the mid-1980s. The equally noteworthy growth in international student numbers is apparent, particularly since 2000.

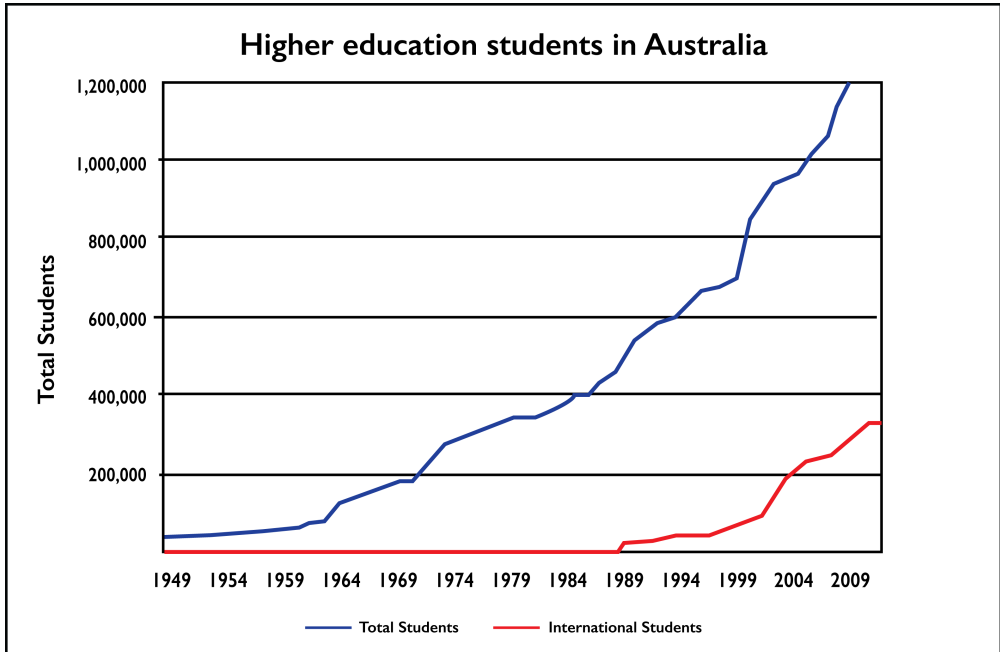


Figure 1. Total number of students in Australian higher education 1949-2010 (Source: DEEWR, DIISRTE data)

This massification phenomenon has been accompanied by a concomitant growth in award course completions which have more than tripled since 1987. Completions for higher degrees by coursework have witnessed the most notable increases since the Dawkins reforms were introduced, with completions tripling between 1990 and 1995, and further increases of more than 150% since 2000. Similarly, in undergraduate bachelor programs completions tripled over the 25-year period. The sector also experienced a substantial increase in the number of students completing sub-bachelors awards, including Associate Degree, Diploma and other award courses since 2000. This trend reflects the expansion of multiple pathways to and through tertiary education that typify a mass higher education system.

Massification in the Australian higher education system has mirrored that of other OECD nations. Global competitiveness has been a feature of the higher education landscape over the past two decades; and in a marketised environment, the export value of Australian international education has

been a key driver underpinning the sector-wide focus on assuring quality and standards in higher education provision and outcomes.

Three significant policy imperatives have emerged as a result of this massive systemic growth in Australian universities; these have, in turn, shaped the research themes outlined later in this review (see Section 4). These imperatives are: student retention, and its converse—attrition; the quality of teaching and the student experience; and academic quality and standards. For several years, national policy and funding schemes in Australia have tended to focus on the quality of the first year of undergraduate study and associated patterns of student retention from first to second year. This commitment on the part of Australian policy makers and university leaders was informed by the influential research-informed first year experience movement which addressed comparable issues in North America. In Australia, the national recognition of the first year as a crucial opportunity to engage and retain students in the system has spawned a number of developments in the area of student support and a focus on the quality of the first year experience.

I have reflected elsewhere (Krause & Reid, 2015) on how student experience research has functioned as a barometer reflecting waves of change that have taken place across the sector during the past quarter of a century. This is further explored in the second part of the review.

3. National approaches to supporting student experience research: A proud history, but what next?

As the Australian higher education sector has evolved, so too have the various national approaches to recognising and rewarding learning and teaching. Over the last 25 years, the Australian Government has supported several initiatives to promote quality and excellence in university teaching. These included the Committee for the Advancement of University Teaching (CAUT, 1992-1996), the Committee for University Teaching and Staff Development (CUTSD, 1997-1999) and the Australian Universities Teaching Committee (AUTC) which operated between 2000 and 2004, followed by the Carrick Institute for Learning and Teaching in Higher Education, the Australian Learning and Teaching Council (2005-2011) and, most recently the Office for Learning and Teaching (2012-2016).

An analysis of the respective priorities and funded projects of these Committees and Councils reflects the contemporary policy imperatives and associated challenges facing universities in the rapidly growing higher education sector. For instance, in the early 1990s, as the newly 'blended'



sector came to terms with the report on a trial evaluation study of performance indicators in higher education (Linke, 1991), there was growing interest in strategies for improving the quality of the student experience, along with the quality of teaching, in the context of rapidly growing student numbers. CAUT funded numerous national teaching development projects including a review of strategies for recognising and rewarding good teaching (Ramsden, 1995), along with the first of the four national studies on the first year experience in Australian universities (McInnis & James, 1995), mentioned in the previous section.

Dawkins' White paper (1988) prioritised the extension of distance education techniques and 'the use of advanced technologies'. Various discipline-based projects were funded to investigate the relative merits of curriculum innovations such as problem-based learning and the use of flexible curriculum design and technology-enhanced teaching during the 1990s. The Australian Universities Teaching Committee (AUTC) was tasked with identifying emerging issues in teaching and learning in Australian universities in the early 2000s. The AUTC prioritised sector-wide collaborative projects which included cross-institutional collaboration and partnerships with professional associations (Hay, 2000). These projects once again reflect key challenges facing universities at the time, including a focus on discipline-based learning outcomes and curriculum development, assessment, teaching large classes, training and management of sessional staff, and enhancing the quality of postgraduate coursework teaching (AUTC, 2002). The Carrick Institute and the Australian Learning and Teaching Council (ALTC) further reinforced the importance of strategic partnerships among universities with an emphasis on sustainability of outcomes and impact on the quality of learning, teaching and the student experience. The ALTC also heralded the introduction of a suite of initiatives on discipline standards and standards-based approaches to assessing student learning outcomes.

Gardner (2015) observes that funding for learning and teaching has suffered cuts in most federal budgets over the last seven to eight years. In the 2015 federal budget the Office for Learning and Teaching had its funding cut by over 36% for the period 2016 to 2019. In 2015 the federal government commissioned a review to determine the next iteration of the national approach to promoting excellence in learning and teaching. The result is expected to include the development of a new Institute for Learning and Teaching to be hosted by one or more Australian universities. At the time of writing, there is considerable sector-wide concern about the perceived decline of the Commonwealth's commitment to funding and support for a national body such as the ones that have been so critical in

sponsoring and leading some of the key research projects outlined above which have been so pivotal to shaping the national agenda in higher education student experience over the past two decades.

4. Australian student experience research: A 15 year retrospective

As the Australian higher education sector has evolved, so too has the body of research relating to arguably the most important constituents of the system—our students. This section presents a thematic analysis of the student experience research in which I have been involved since 2000 until 2015. Analysis of this research, together with the funded projects and the publications and presentations emerging from them represent an illuminating historical record of key government policy imperatives in relation to the student experience over a decade of Australian higher education¹. I have identified four research themes that have emerged over four phases reflecting key developments and shifting policy priorities in Australian higher education. In my discussion I will also include learning theories and conceptual frameworks that have been most influential in shaping my thinking during this period.

Theme 1: The changing nature of the higher education student experience

In the first phase of my research career (2000-2003) I investigated the many facets of the first-year student experience, with a particular interest in the pivotal role of social connectedness as a means of fostering a sense of belonging among student cohorts in the early days and weeks of the university experience. Sociocultural and constructivist theories of learning played an important role in shaping the way I conceptualised the research questions during this period. Having responsibility for teaching a large first year subject during that time, provided me with an instructive frame of reference for investigating the hypothesis that the skills of academic writing played a significant role in helping students to become integrated into the fabric of the learning community, thereby contributing to student success, particularly in the first major piece of assessment.



Table 1. Higher education student experience: First year transition, student engagement, changing student experience and demographics

2000 – 2003 (phase 1)	2004 – 2007 (phase 2)	2008 – 2011 (phase 3)	2012 – 2015 (phase 4)
Social connections (Krause, 2000)	10 year trend study of the 1st year experience (Krause, 2005)	Residential student experience (Jennings & Krause, 2008)	Arrival and orientation engagement (Krause, 2012c)
Academic integration into 1st year: writing skills (Krause, 2001)	Equity groups in higher education (Krause, 2005)	15 year trend study of 1st year experience (James, Krause & Jennings, 2010)	The Australian university student experience over 25 years (Krause & Reid, 2013)
1st year skill development using online writing tools (Krause, 2002)	Internationalisation in higher education (Krause, Coates & James, 2005)	Adapting curriculum to engage diverse student cohorts (Krause, 2011a)	
Peers & engagement (Krause, McInnis & Welle, 2002)	Student decision-making (Krause & Ahmad, 2005)		
Embedding and evaluating whole-of-university transition programs (Dickson, Krause, & Rudman, 2002)	Final year student experience (Krause, 2005)		
Changing nature of student experience: balancing study and work (Krause & McInnis, 2002)	Student attrition, retention, persistence (Krause, 2005)		
Out of class peer engagement (Krause, McInnis, & Welle, 2003)	Supporting 1st year writing online (Krause, 2006d)		
	Out of class peer engagement (Krause, 2007a)		
	Social involvement and transition (Krause, 2007c)		
Funded projects reflecting government HE policy imperatives (2004-2014)	<ul style="list-style-type: none"> ▶ 2004 National Study of Trends in the Quality of the First Year Experience of Undergraduates in Australian Universities (DEST, 2004) ▶ Systemic factors affecting the access and participation of students from low SES backgrounds in Queensland universities (Qld DETA, 2008) ▶ 2009 National Study of Trends in the Quality of the First Year Experience of Undergraduates in Australian Universities (DEEWR, 2009) 		

My research on the first year experience was heavily influenced by significant national developments in Australia in the 1990s. Reflecting the growing national interest in a more scholarly approach to examining various dimensions of the university student experience, the inaugural first year in higher education conference was convened in 1995 with the theme of 'travelling through transition'. This period also marked the commencement of a focus on institutional support for first year student induction and transition. While there were pockets of good practice in this regard (e.g., at the University of Melbourne and Monash University), it is fair to say that first year support programs were not widespread until the mid- to late 1990s as government funding for first year retention galvanised the sector. In 1993 the Committee for Advancement of University Teaching funded the first national study of the first year experience in Australian higher education (McInnis & James, 1995). Together these developments played an important role in shaping the sector's thinking about the importance of the first year experience in Australian universities.

During the early part of the noughties, there was considerable national interest, including from government, in the changing nature of the first year experience (see Table 1). This was reflected in the funding from DEST in 2004 and DEEWR in 2009 for national trend analyses the results of which have played a significant role in shaping the introduction of the new Student Experience Survey (Radloff, Coates, James & Krause, 2011) for Australian higher education providers. The funding for these studies also ran in parallel with various performance-based funding schemes to reward universities for ensuring that students successfully transition from first to second year and, further, that they successfully complete their undergraduate study. More recently such performance funding schemes have largely been replaced by the publication of institutional student feedback and related performance data on the Commonwealth Government's Quality in Learning and Teaching website.

The conceptual frameworks underpinning my early research on the changing nature of the student experience were largely informed by the seminal student experience research in the United States (e.g. Astin's (1985) theory of student involvement; Bandura's (1997) self-efficacy theory; see also Pascarella & Terenzini 1979, 1983, and Tinto, 1975). However, as Australian student experience research started to come of age, it was important to test these hypotheses and to theorise within the Australian context. It is gratifying to see this research culture develop to a more advanced level of maturity through the work of such researchers as Jardine (2012) who argues for the importance of culturally appropriate, fit-for-purpose theorizing in her work on factors influencing the persistence of

students from low socioeconomic backgrounds in the Australian context. During this time, I also came to appreciate the important role of bespoke, culturally sensitive and context-appropriate learning resources to support students' engagement with learning, especially in the first year. This resulted in an introductory level educational psychology text (Krause, Bochner & Duchesne, 2003) which was designed particularly for the Australian context.

Phase 3 of my research on the student experience (2008-2011) included a sustained empirical interest in the changing nature of the first year experience, comprising the 15 year trend study (James, Krause & Jennings, 2010) and a study of the residential student experience (Jennings & Krause, 2008). This research area highlights a relative gap in the student experience research of the last 25 years—that of student accommodation and housing arrangements. During a period of unprecedented growth in the higher education sector, student accommodation arrangements and their implications for the quality of the student experience would seem a key area of investigation, yet Abbey (1994) observes that the history of research in this regard has been patchy, at best. While studies of the individual residential colleges and halls exist, there is limited documentation of the growth of the non-collegiate sector and private rental arrangements for students. This is particularly salient in the case of international students for whom concerns about personal security (Forbes-Mewett & Nyland, 2008), loneliness and isolation (Sawir, Marginson, Deumert, Nyland, & Ramia, 2008) while studying in Australia have become prominent policy issues.

Theme 2: Undergraduate curriculum and technologies in learning and teaching

A second key theme in the Australian higher education student experience research is that of the undergraduate curriculum. This critically important field of research comprises several strands of investigation, including that of curriculum design, assessment, the role of disciplinary cultures on curriculum design, the interplay of research and teaching in the undergraduate curriculum, and the impact of technologies on student engagement, whether on campus or virtually. Between 2004 and 2007, my research was dominated by an interest in investigating the role of the undergraduate curriculum and assessment in student learning and outcomes. The funded projects² outlined in Table 2 are indicative of the extent of national interest in discipline-based research projects on curriculum design, assessment and learning outcomes in such fields as the biological sciences and physiotherapy.

Table 2: Under-graduate curriculum and technology: Undergraduate curriculum and assessment, Technology, learning and online communities

2000 – 2003 (phase 1)	2004 – 2007 (phase 2)	2008 – 2011 (phase 3)	2012 – 2015 (phase 4)
<p>Languages of cyber-communities (Krause, 2000, 2002)</p>	<p>E-education (Krause, 2004)</p> <p>Online learning, quality and engagement (Krause, 2004, 2006b)</p> <p>First year curriculum (Krause, 2005)</p> <p>Undergraduate curriculum changes in Australian HE (Krause, 2006e)</p> <p>Assessment: e-portfolios (Krause, 2006a)</p> <p>The teaching-research nexus in curriculum (Krause, 2007d)</p> <p>Assessment in the biological sciences (Krause, et al., 2007)</p> <p>E-learning and the e-generation (Krause, 2007b)</p>	<p>The teaching-research nexus in curriculum (Krause, 2008)</p> <p>Physiotherapy curriculum and learning outcomes (McMeeken et al., 2008)</p> <p>Are 1st year students really 'digital natives' (Kennedy, et al., 2008)</p> <p>Technology: a tool for engaging and retaining 1st year students (Krause & McEwen, 2009)</p>	
<p>Funded projects reflecting government HE policy imperatives (2004-2014):</p>	<ul style="list-style-type: none"> ▶ Learning Outcomes and Curriculum Development in Physiotherapy (AUTC, 2004/5) ▶ Assessment in the Biological Sciences (Carrick, 2006) ▶ The Academic's and Policy-Maker's Guides to the Teaching-Research Nexus (Carrick, 2006) ▶ Educating the Net Generation: Implications for Learning and Teaching in Australian Universities (Carrick, 2007) ▶ Student Induction to E-Learning. A collaborative project with IMS Global Learning Consortium (USA) (DEEWR, 2008) 		

As the higher education sector nationally expanded to widen the participation of under-represented groups, such as those from lower socioeconomic backgrounds, so the research and policy interest grew in

addressing the question of ‘what is higher about higher education?’. This question underpinned the Carrick-funded project entitled ‘The Academic’s and Policy-Maker’s Guides to the Teaching-Research Nexus’ (see Table 2) and led to a number of presentations (e.g., Krause, 2012f, 2008) and publications (Krause, 2007d). This research question also underpinned subsequent research on disciplinary differences (Krause, 2012b, 2014). Equally significant during this period was the publication of the 10 year trend study of the first year experience (Krause, Hartley, James & McInnis, 2005). This was accompanied by several publications reflecting a growing national interest in how conceptions of student engagement were shaped by the changing demographic characteristics of the first year student cohort in an increasingly massified higher education sector.

Under the auspices of the Carrick Institute for Learning and Teaching, the Commonwealth also supported several projects investigating the impact of technology on curriculum, learning and teaching in the mid 2000s. A deep interest in this regard started in 2000 when I co-authored *Cyberlines: Languages and cultures of the internet* with Gibbs. Since that time, I have maintained a steady interest in studying the value of technology as a tool for learning and engagement. My thinking was shaped by Siemens’ (2005) early theorising of connectivism. Siemens argued for the importance of nurturing and maintaining connections between ideas, concepts, people and a range of information sources, including what was, at that time, the emergent phenomenon of the internet in education. As the prevalence of technologies has expanded, so too has the need to take issue with the stereotypical view of students as ‘digital natives’ who, by virtue of their age, are assumed to have the requisite knowledge of how to use technology to optimise learning (for more on this see Kennedy and colleagues, 2006, 2008). Such assumptions have been challenged in the literature as we develop more nuanced understandings of the importance of contemporary curriculum design in improving students’ use of technology to engage with learning (Krause & Coates, 2008), with each other and with community and workplace settings.

Theme 3: Academic quality and standards—monitoring and evaluating student learning

During the 2000s, the former Australian Universities Quality Agency conducted a series of quality audits in institutions across the higher education sector. In the mid- to late-noughties the Australian Learning and Teaching Council also funded extensive work on discipline standards, thus signalling the national interest in demonstrating how higher education

providers were monitoring and assuring academic quality and standards, particularly in the area of student learning outcomes.

During this period, I pursued a growing research interest in matters relating to quality in higher education. In some publications I characterised quality as a ‘wicked’ and contested problem (Krause, 2010, 2012d) that has no single solution but rather one that demands the collaboration and cooperation of multiple stakeholders within and across institutions and government. This research interest is depicted in Table 3. It reflected national and international calls for more evidence-based approaches to demonstrating ways in which universities were able to demonstrate how quality and the assurance of academic standards were being monitored and articulated. In my research this manifested itself in several publications that examined the merits of quantitative performance measures in such areas as monitoring internationalisation in higher education (Krause, Coates & James, 2008).

Table 3: Monitoring and evaluating student learning: quality standards, policy and wicked problems

2000 – 2003 (phase 1)	2004 – 2007 (phase 2)	2008 – 2011 (phase 3)	2012 – 2015 (phase 4)
	E-education: policy implications (Krause, 2004) Equity policy framework (Krause, 2005)	Quality: a wicked problem (Krause, 2010) Measuring engagement (2008, 2011) Whole-of-university strategic use of student survey data for improvement (Krause, 2011c)	Policy focus (Krause, 2012) Quality: a contested, wicked problem (Krause, 2012d) Quality university teaching (Krause, 2012a, 2015b) Quality enhancement (Krause, 2013) Monitoring and assuring academic standards (Krause & Scott, 2014) Student engagement: a wicked quality problem (Krause, 2012e)

Funded projects reflecting government HE policy imperatives (2004-2014)	<ul style="list-style-type: none">▶ Developing and validating a Teaching Standards Framework for the Sector (ALTC, 2010)▶ A sector-wide model for assuring final year subject and program achievement standards through inter-university moderation (ALTC, 2011)▶ Development of a University Experience Survey measuring dimensions of higher education students' university experience (DIISRTE, 2011)
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Systems theory (Senge, 1999, 2006) has long informed my conceptualisation of factors influencing the quality of the student experience and outcomes. Early in Phase 1 of my research career, I collaborated with a senior colleague and mentor to document a whole-of-university approach to embedding and evaluating first year student transition programs (Dickson, Krause & Rudman, 2002). This commitment to holistic, pan-university approaches to quality assurance and enhancement continued through Phase 2 and 3 and is evident, for example, in my analysis of whole-of-university strategies for evaluating the student experience and for using student data for quality improvement (Krause, 2011a, 2011b, 2011c).

The final phase in Table 3 (2012-2015) reflects a continued emphasis on quality as a contested, wicked problem. During this period I charted the history of Australian universities' approach to managing the competing demands of quality assurance and enhancement (Krause, 2013a). I concluded that a compliance approach to quality would do little to transform the student experience and highlighted the challenge that universities face in navigating the fine line between accountability and enhancement. During Phase 4, my research became increasingly focussed on policy levers to effect the institutional changes and transformations that the changing student demographic requires and, indeed demands. Also apparent in my publications of this period is a concomitant focus on new approaches to academic capability development to effect change (Krause, 2013b).

Theme 4: Engaging staff to engage students

Systems thinking has played an important role in shaping my thinking as I extended my focus on the changing nature of the student experience to encompass that of the academic faculty experience and the changing nature of academic work in higher education (see for example Krause 2009). Influenced by the conceptual framing of such thinkers as Malcolm and Zukas (2009), Bernstein (1995) and Becher and Trowler (2001), I worked with a

research team including Richard James and G. Baldwin (2005-2009) to investigate the influence of disciplinary cultures on approaches to undergraduate teaching and learning. This research (see Table 4) has been seminal in shaping my appreciation of the critical role of disciplinary epistemologies in shaping academic cultures and identities.

Table 4: Engaging staff to engage students: academic work, disciplinary differences and the staff voice

2000 – 2003 (phase 1)	2004 – 2007 (phase 2)	2008 – 2011 (phase 3)	2012 – 2015 (phase 4)
		The academic voice across disciplines (Krause 2009) Degree program leaders in multicampus universities (Krause, 2010) Changing academic roles and identities (Krause, 2009, 2011)	Degree program leaders in multicampus universities (Krause et al., 2012) Academic cultures (Krause, 2012) Academic development to effect change (Krause, 2013) Fostering academic expertise (Krause, 2015a 2015b)
Funded projects reflecting government HE policy imperatives (2004-2014)	<ul style="list-style-type: none"> ▶ The influence of disciplinary cultures on approaches to undergraduate teaching and learning: extending higher education theory and practice (ARC, 2005) ▶ Program Leader Networks and Resources to Enhance Learning and Teaching in Multicampus Universities (ALTC, 2008) ▶ Academic Workforce 2020: Framing a national agenda for professionalising university teaching (OLT, 2011) 		

My work in this regard is based on the premise that in order to engage students, one needs to engage the staff who teach and interact with them (D’Andrea & Gosling, 2005). This period in my professional life coincided with growing responsibilities for leading whole-of-institution curriculum

reform. It is not surprising, therefore, that I was searching for evidence-based approaches to help me to more effectively engage and support staff, particularly academic faculty, to achieve systemic change. As for each previous phase, my practice was closely connected to my research and vice versa.

At the national level, the Australian Learning and Teaching Council (ALTC) recognised the importance of supporting academic staff capability development. One example of this is evident in their funding for a cross-university collaborative research project on developing academic capabilities among academic staff with program leadership responsibilities (see Appendix I ALTC, 2008). The Office for Learning and Teaching (OLT) also supported research investigating approaches for professionalising university teaching in recognition of the changing nature of academic work and the critical importance of recognising and rewarding high quality teaching as foundational to enhancing the quality of the student experience (see Appendix I OLT, 2011).

The personal reflections represented in this review, and summarised over a 15-year period, represent but a small portion of the rich heritage that is evident in Australian higher education student experience research over the past 25 years. This research tells an important story about key policy challenges facing the Australian higher education sector over time. It also provides a fruitful avenue for considering what lies ahead in the next 15 years, as outlined in the section to follow.

5. Implications for the next 15 years of student experience research

In reflecting on the key themes one might anticipate reading about in a 30 year retrospective on Australian student experience research in 2031, one cannot help but wonder how the themes articulated in Section 4 might evolve over the coming period.

I anticipate that student transition and engagement will continue to be important themes, but the focus of transition will undoubtedly continue to expand well beyond transition into university. For example, there is a considerable body of well-established research on the transition out of higher education in the form of research on graduate attributes and outcomes (Barrie, 2006; Oliver, 2013). Research on the means of supporting transition and student engagement may well be very different. By 2031, I anticipate that student experience research will reflect evaluative analysis of innovative ways in which students were engaged with industry and



communities before, during and after their university studies as a means of deriving sustained, reciprocal benefits and transformation both in the lives of students and in the industries and communities they serve. We see evidence of very good work in the area of work-integrated learning and student internships, for example, but I predict there is further innovation to be achieved in how these experiences are embedded in curriculum, bundled and credentialed in creative ways, and digitally enabled in ways we cannot even imagine at this point.

I predict that, by 2031, we will be reviewing with much interest research on the continuing evolution of the undergraduate curriculum. We may redefine the notion of curriculum as students and systems become more adept at enabling course content bundling and the credentialing of such. Accompanying these changes, I expect substantial changes in the nature of academic work in Australian universities and in 15 years we should expect to see research that reflects and critiques these changes.

Already we are observing national and international interest in the changing nature of the academic workforce and the increased professionalization of academic roles. Whitchurch (2008) observes the development of the 'third space professional' who spans traditional boundaries between academic and professional staff. This is particularly evident as technology continues to emerge as a powerful disrupter in higher education curricula. Meanwhile, Probert (2013) raises provocative questions about the issue of teaching-focussed academic appointments in Australian universities. Several Australian universities (for example the University of Tasmania and the Australian National University) are drawing on the UK Professional Standards Framework and the Higher Education Academy Fellowship scheme as international benchmarks of teaching excellence. As the spotlight shines ever more brightly on evidencing teaching quality and academic standards in an international higher education market, we can expect to see more activity in this regard. Research on the links between teaching quality and impact on student learning outcomes will continue to be key.

In light of these developments, I foreshadow that quality and standards will remain an enduring theme in the higher education landscape in Australia. This should include institutional and national policy research that reflects deep analysis and greater sophistication in how we gather, analyse and use student feedback and analytics for the purposes of enhancement. In particular, I anticipate considerable advancement on value-add measures to assess the relative contributions of institutions who admit the least well prepared and most disadvantaged among our student population. I would



also hope to see further advances in how the sector and individual institutions monitor and assure the quality and standards of students' engagement with their courseware, however defined, together with student outcomes.

Regrettably, I predict that issues relating to equity in higher education, including the critically important matter of higher education participation and success of Australia's Aboriginal and Torres Strait Islander population, will continue to be considered a wicked policy issue. At the time of writing, the strategically significant federal government Higher Education Participation and Partnerships Program (HEPPP) funding is under review, with considerable uncertainty in some quarters about the future of this critical funding pool that supports universities' efforts to increase higher education participation of people who are from low socio-economic status backgrounds.

Over the last 15 years we have observed the demise of several government-funded research schemes designed to support the kind of student experience research outlined in this review article. These include the Evaluations and Investigations Programme in the former Department of Education, Training and Youth Affairs and the Higher Education Innovations Programme in the former Department of Education, Science and Training. During the lifespan of the Australian Universities Teaching Committee and its subsequent iterations—Carrick, ALTC and OLT—funding was available to support the enhancement of learning and teaching and the student experience. However, there remains deep concern about the prospects of future government funding for a national higher education learning and teaching body. In 15 years from now, history will judge the substantial—potentially dire—impact reduced funding and national recognition in this regard will have on the quality of the student experience in Australian higher education.

6. Concluding reflections

It is not often that one has the opportunity to draw together the strands of one's research over the period of a decade and more. This has been an enlightening and challenging process for me and one that has reminded me of three enduring truths that have stood the test of time since I started as an early career academic in the field of educational psychology: i. students and their learning are the heart and soul of higher education, no matter how substantial the changes; ii. co-researchers and vibrant project teams are—at least for me—the lifeblood of success when it comes to generating new knowledge and working with the many wicked problems of higher



education; and iii. change is a constant—the key to successfully navigating change has been to maintain a steady focus on the anchor points that are our students and the transformative value of learning as a catalyst for changing lives and communities.

In presenting these personal reflections, it is my hope that current and future higher education researchers and policy makers might take up the challenge to continue the quest for rigorous and research-informed policy making and practice in Australian higher education at local and national levels

7. Notes

1. Publications represented in this thematic analysis include a combination of sole- and multi-authored publications with valued colleagues. See reference list for full details and attributions.
2. All projects listed here were team-based projects that I either led or contributed to as a team member. See Appendix I for full details and attribution

8. Acknowledgement

I am indebted to external funding bodies who supported several national competitive projects which I either led or contributed to as a team member. Project details and acknowledgement of funding sources are provided at the end of the paper.

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Appendix: Externally funded projects: Acknowledgement of funding sources and project team members

Year	Title	Project Members	Funding body
2004	2004 National Study of Trends in the Quality of the First Year Experience of Undergraduates in Australian Universities.	McInnis, Krause, & James.	Department of Science, Education and Training, HEIP
2005-2009	The influence of disciplinary cultures on approaches to undergraduate teaching and learning: extending higher education theory and practice.	James, Baldwin, & Krause	Australian Research Council
2006	Assessment in the Biological Sciences.	Krause, Harris, James, & Garnett	Carrick Institute for Learning and Teaching
2006-2008	The Academic's and Policy-Maker's Guides to the Teaching-Research Nexus.	Krause, Arkoudis, James, & McCulloch	Carrick Institute for Learning and Teaching
2007-2009	Educating the Net Generation: Implications for Learning and Teaching in Australian Universities.	Kennedy, Krause, Gray, Judd, Bennett, Dalgarno, Maton, & Bishop	Carrick Institute for Learning and Teaching
2008	Systemic factors affecting the access and participation of students from low SES backgrounds in Queensland universities.	Krause, Vick, Bland, & Boon	Queensland Department of Education, Training and the Arts
2008-2009	Student Induction to E-Learning. A collaborative project with IMS Global Learning Consortium (USA)	Krause, McEwen, & Blinks	Department of Education, Employment and Workplace Relations and the Australian Department of Innovation, Industry, Science and Research

2008-2010	Program Leader Networks and Resources to Enhance Learning and Teaching in Multicampus Universities.	Krause, Lizzio, Bath, Scott, Campbell, Spencer, & Fyffe	Australian Learning and Teaching Council
2009	2009 National Study of Trends in the Quality of the First Year Experience of Undergraduates in Australian Universities.	James, Krause, & Jennings	Department of Education, Employment and Workplace Relations
2010	Developing and validating a Teaching Standards Framework for the Sector	Sachs, Mansfield & Kosman	Australian Learning and Teaching Council
2011-2014	A sector-wide model for assuring final year subject and program achievement standards through inter-university moderation.	Krause, Scott, Sachs, Deane, Webb, Vaughan, Pattison, & Probert	Australian Learning and Teaching Council

