# INTRODUCTION

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This edition of The Australian Journal of Indigenous Education is a special supplementary issue which brings together papers from the 2007 Indigenous Studies and Indigenous Knowledge Conference that have been reviewed through a blind-referee process. The conference was hosted by Jumbunna Indigenous House of Learning, and the Indigenous Programs Unit in the Faculty of Business, at the University of Technology Sydney, 11-13 July 2007. It was the second of an annual conference series planned to encourage conversation and dissemination about the place and meaning of Indigenous knowledge in the Western academy and its implications for the evolving crossdisciplinary area of Indigenous studies. The series began in 2006 with the (Re)Contesting Indigenous Knowledges and Indigenous Studies Conference hosted by the Oodgeroo Unit, Queensland University of Technology. The papers from that series were published by The Australian Journal of Indigenous Education in Volume 36, Supplement 2007. The third conference was hosted by Riawunna, Centre for Indigenous Education, at the University of Tasmania in Hobart, 2-4 July 2008.

Internationally, Indigenous studies, in all its various denominations, has become the focal point for the collection and distribution of knowledge about Indigenous peoples across the academy. Since the mid-1980s when significant numbers of Indigenous students began to enter Australian universities, the production and transmission of knowledge and understanding "about" Indigenous peoples has sat in uneasy tension with higher education programs "for" Indigenous students and other students. The presence of Indigenous students, staff, academics and researchers has ensured inevitable contestation of the meanings of Indigenous experiences and traditions as these are re-presented (or omitted) through the knowledge, practices and conventions of the disciplines which underpin teaching, learning, and research activities in faculties.

The Indigenous Studies and Indigenous Knowledge Conference series attempts to provide the space to draw in these aspects of our knowledge and experience into complex and challenging conversations. While the conference series encourages contestation of the issues, it does not seek a divisive campaign between Indigenous and Western knowledge in the academy. Rather it supports "unsettling" conversations and encourages original or applied thinking that can promote the sorts of analysis required to explicate

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the complexities of Indigenous peoples' position in the 21st century. The aim is to encourage Indigenous and non-Indigenous academics, practitioners, and researchers to explore, investigate, describe, and interrogate our own assumptions and thinking as well as our own practices and positions. Those of us who are Indigenous seek to make our presence felt in the interest of working more productively with and between both sets of understanding. While we may contest and dismantle the thinking of others, the aim is to produce forward motion in our own thinking and production of knowledge.

The highlighting of Indigenous knowledge in these conversations reminds us of all that still stands outside of the academy; all that is still not understood or well represented in the conversations and scholarship about Indigenous peoples and issues. Indigenous knowledge also reminds us that in everyday practice, Indigenous people are often working in accordance with other systems, values and practices passed down while at the same time making sense of and operating in Western frameworks. The coupling of Indigenous knowledge with Indigenous studies reminds us that in our own scholarly conversations and practice we are contributing to and constructing ways of thinking about Indigenous peoples and issues - we are responding to and shaping the discourses, the disciplines, and Indigenous cross-disciplinary practices - and we are passing that on to students. Indigenous studies represents a pivotal point between Indigenous knowledge, understanding, and experience and the representation and discussion of that in academia, in public affairs, and in the training of students' thinking and professional practice. But, embedded as it has been in Western systems of thought, Indigenous studies also represents the history of thinking about us, our current contestations, and the grounds for future understanding and directions. The conversations we generate in this conference series are therefore important opportunities to rethink the relationships between Indigenous and non-Indigenous on a range of levels and in a range of contexts.

The Indigenous Studies and Indigenous Knowledge Conference series attracts diverse interests and wideranging papers that cross a range of disciplines, topics, and theoretical and practical contexts. In 2007, we added an Indigenous student support strand. This was an attempt to gather together those who teach and support Indigenous students and who have a close working knowledge of the challenges students have in these contested knowledge spaces. This is a qualitative aspect of Indigenous higher education experience that is often lost between our understandings of the challenges facing academically under-prepared Indigenous students and the discourses of mainstream support, bureaucratic pressures, and government accountability agendas. The opportunity for these academics and support professionals to be part of the wider Indigenous studies – Indigenous knowledge conversations keeps us all connected in our efforts. What to teach and how to teach Indigenous studies and Indigenous students is an important part of the conversation.

It is interesting to note that comments in the 2007 conference survey reinforce that people want to learn from each other's practical experience within and across the sub-sectors of Indigenous activity. Suspicion about the relevance of perceived "elite" scholarship to Indigenous community contexts remains a concern for some. Although topics relating to Indigenous studies - Indigenous knowledge range very wide, it is important the conference series does not run the risk of trying to be all things to all people in all sectors, or raise false expectations about what can be achieved through these conversations. At one level the conference series is unapologetically academic and resonates most strongly with those involved in Indigenous studies in the higher education sector. However, wherever Indigenous knowledge issues intersect with practice on the ground, descriptions and analysis of practice contribute to Indigenous studies and wider conversation in Indigenous affairs. It is important that those who work at the interface between Western and Indigenous knowledge practice report and disseminate their experiences through publication so that this can be brought back in to keep shaping the content of Indigenous studies, cross-disciplinary work and the field of Indigenous inquiry and research. For Indigenous graduates and other community workers, this conference series is a touchstone to the changes in thinking occurring all the time through research and other scholarly work. The theory-practice nexus involves us all in these important conversations as learners. Without both scholarship around theoretical and methodological concerns, and reporting and research about practice, both theory and practice will be the losers.

The 2007 conference papers in this edition not only cross a range of topics but approach questions of Indigenous knowledge - Indigenous studies in different ways. The 2007 conference international keynote speaker was George Dei, Professor and Chair, Department of Sociology and Equity Studies, Ontario Institute for Studies in Education at the University of Toronto. Professor Dei received his higher education in both Ghana and Canada and spoke of ways to "cultivate an Indigenous space in the Western academy" (p. 8 this volume). Dei urges Indigenous scholars to establish an Indigenous presence through claims of identity, place and culture and argues that the material and discursive conditions of knowledge production in the academy must account for identity politics to avoid misrecognition and negation. From an African perspective, he sets out principles for building a 'critical Indigenous discursive framework' to meet

Pearce's contribution also emphasises the close ties between teaching and learning and the support of students and draws attention to the critical role of Indigenous program facilitators. The connections between teaching and learning and academic skills support are also addressed by Martin Nakata, Vicky Nakata and Michael Chin. The authors contend that Indigenous students require particular academic tools for engaging the disciplines whilst drawing in their own knowledge and experience to inform their own analyses of content presented to them in courses. An argument is made that research is needed to shed light on how Indigenous students process intellectual contestations between their own knowledge and experience and those represented or omitted from their course content. A different approach is taken by Soenke Biermann, a non-Indigenous student, and Marcelle Townsend-Cross, an Indigenous academic, who reflect on the meanings of transformative pedagogy in an Indigenous studies subject for Indigenous and non-Indigenous students. They argue for the potential of pedagogy based on "Indigenous values, philosophies and methodologies ... to effect positive educational change for all learners" (p. 146). Descriptions of concepts of Indigenous pedagogy and some tools for practice provide a basis for others to explore and adapt.

All these papers contribute to understandings of the cultural interface between Indigenous studies – Indigenous knowledge. All make cases for the Indigenous position within the academy and/or in practice beyond the academy. These papers stand, not just as contributions to the discourse, but as sites for further discussion and conversation. All those who teach, work and play a supporting role in the Indigenous higher education sector are urged to interrogate, build on, and take these contributions forward.

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# About the author

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# APPROACHES to the ACADEMIC PREPARATION and SUPPORT of AUSTRALIAN INDIGENOUS STUDENTS for TERTIARY STUDIES

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# Abstract

This paper explores how the academic performance of Indigenous students has been investigated in the higher education literature and where this fits within the academic support context and teaching and learning developments in Australian universities. The authors suggest an approach to Indigenous academic skills support that equips Indigenous students with tools for managing their engagements with the content of Western disciplines. A case is made for more focussed research around Indigenous students' approaches to processing intellectual content while developing their own Indigenous standpoints.

# Introduction

Academic preparation, transition and student support programs have evolved in Australian universities as strategic interventions to improve Indigenous participation, access and outcomes in tertiary level studies (Hong & Cousins, 2003). The economic cost of broader student attrition for universities largely drives mainstream" developments in changing approaches to academic support and teaching/learning developments in universities (Lintern et al., 2001). These academic support and teaching and learning developments are also an acknowledgement of increasing student diversity and the need to accommodate and respond to this diversity (McInnis, 2003). Of more concern from the Indigenous perspective are the opportunity costs of student attrition to the Indigenous community when Indigenous engagement with higher education, seen as a key to improve Indigenous well-being and futures, does not achieve desired outcomes. Despite the tremendous efforts in the Indigenous higher education sector to close the gap between the retention, completion and graduation rates for Indigenous students and other students (DEST, 2005; Encel, 2000), the gap remains.

Tensions in a changing academic support context

It has been noted in the general student support literature that retention is associated with "the policies, actions and strategies of the institution to keep a student" (Jardine & Krause, 2005, p. 5), while persistence is associated with "individual students' actions to continue with studies despite negative influences acting upon them" (Jardine & Krause, 2005, p. 5). The pressure to improve retention and persistence of students has placed focus on their need to adapt to the demands of university expectations and at the same time has brought increased pressure on universities to accommodate the needs of diverse student populations. This has led institutions to extend their focus beyond discrete academic skills support interventions and towards academic teaching and learning as an area of research and professional

development in universities (Bryant et al., 1999). Developments in teaching and learning approaches are generally concerned with issues surrounding curricula and pedagogy—what and how course content is delivered and assessed. Efforts to integrate or scaffold students' academic skills development within the teaching process have been reported (see Kift, 2005). The general academic support/student diversity literature draws attention to the "blurring of boundaries" in the roles of academic skills support staff and academics' roles in adjusting teaching and learning (McInnis, 2003, p. 398).

This changing academic support practice occurs at the site of intersecting tensions: between the "retentive" institution and the "persistent" individual; between the roles of academic skills support staff and academic teaching staff; and between the delivery/demands of course content by academics and the individual's development of academic skills required to engage successfully to meet academic standards.

Students as learners are positioned and understood by the academy within these tensions. Changing academic support practice for diverse cohorts of students is institutional recognition that the once "already ready for academic learning" student can no longer be assumed. Lawrence (2000) contends, however, that in terms of institutional responses to academic under-preparedness, student diversity is largely framed through deficit theory, where unfamiliarity with academic discourse and conventions is read as a problem rather than the site and source of students' engagement with, negotiation, and mastery of academic discourse.

The tensions for Indigenous students in these changing student support contexts

Indigenous students have always been understood as an academically under-prepared and culturallydifferent cohort and a raft of measures has been developed and refined since the mid-1980s to support Indigenous students in higher education (Bin-Sallik, 1991). Indigenous academic support measures have largely been developed outside of general academic support structures for other students. These measures have been firmly situated within broader conceptions of support for Indigenous students, which recognise the particular challenges Indigenous students face in higher education. These broader measures attempt to ameliorate a range of personal, social and cultural barriers to success. The evolution of Indigenous student support centres in most Australian universities attests to the need for this specialised response to support Indigenous students in universities.

Special programs for the academic support of Indigenous students do to some extent mirror the general response for other cohorts of under-prepared students. For example, recognition of Indigenous academic under-preparedness due to historical exclusion has led to the development of various foundation, bridging, enabling, compensatory, supplementary or specially-designed programs or strategies. The Commonwealth Government's Indigenous Tutorial Assistance Scheme (ITAS) recognises lower rates of secondary school completions and provides funding assistance at the tertiary level for one-to-one support of Indigenous students who require academic assistance with particular subjects. Special entry enrolments in most all university programs is yet another example.

We agree with Lawrence (2000) that these approaches are largely deficit-based, but would be reluctant to make this a primary point of contention by being romantic about the position of many Indigenous students beginning university studies. Being academically under-prepared in terms of the requisite academic skills set is a major disadvantage for Indigenous students who must access and engage with the meanings of knowledge within Western disciplines. However, in many cases, special academic programs and support measures have been designed by or in conjunction with Indigenous people, to be culturally affirming and to recognise Indigenous students' starting points; and indeed, their particular purposes for pursuing higher education. This has provided a more positive framework for Indigenous student support.

What we argue is that Indigenous students, particularly under-prepared students need to be considered both in terms of their skills "deficits" and in terms of their particular sets of Indigenous knowledge, which we consider to be important assets they bring to their learning. This "Indigenous" knowledge may simply mean "experience" of the world as an Indigenous person, it may mean historical understanding passed down from the Indigenous perspective, it may mean local knowledge, or community-based experience, or traditional knowledge, all of which are not well-represented in course content, if at all. This knowledge, or these assets, set Indigenous students apart from others and institute them in a particular relation to the knowledge and practices of the academy, which have historically excluded, misrepresented, and de-valued Indigenous knowledge and perspectives (Nakata, 2007).

Lawrence's (2000) positive thesis on negotiating and mastering unfamiliar discourses sits well with Nakata's (2007) notion of the Indigenous students' position at the cultural interface but does not go far enough in considering the position of Indigenous students in their engagements with the content of disciplines. A consideration of Indigenous standpoint (Nakata, 2006), however, forces a focus on how Indigenous students are to be "academically" skilled up to negotiate and master disciplinary and institutional discourses while considering their own knowledge and experience in order to maintain and develop their intellectual positions in relation to course content.

In relation to this aspect of Indigenous learning, we suggest there is a tendency to underplay the importance of the interplay between Indigenous students' skills deficits and knowledge assets. The absence of discussion about this tension appears to fall between the conversations that occur around embedding Indigenous knowledge and content in courses and those that occur in relation to academic skills development and support. We contend this continues the separation of different aspects of learning that are both integral to Indigenous students' successful engagements in the academy and which students need to develop simultaneously. This is quite different from those discussions that surround the development of an identified Indigenous pedagogy, which we consider problematic enough to warrant separate discussion (Nakata, 2004).

In the Indigenous higher education context then, the tensions between teaching and learning issues (around curricula content and pedagogy) and discrete academic skills support measures need to be brought closer together. We suggest that how Indigenous higher education students have been investigated in the literature both shapes and limits our understanding of them as learners in the academy. Revisiting the extant literature is timely to our discussion if the academic preparation and support needs of Indigenous students are to be reconsidered to address this tension between skills deficits and knowledge assets.

Shaping and limiting our understandings

## Performance of Indigenous students

Concern about comparative Indigenous rates of attrition and outcomes with other students has ensured that the performance of Indigenous students and the barriers to their success have received some attention in the literature. Indeed, the factors affecting the performance of Indigenous students have been well reported for more than a decade in different universities, different disciplines, and different program levels (e.g., Bourke et al., 1996; Burden et al., 1998; Kutieleh et al., 2003; Malcolm & Rochecouste, 2002; Nugent & Arbon, 1994; Page et al., 1997; Penfold, 1996; Sonn et al., 1996; Tennent et al., 1996; Usher et al., 2000; Walker & Humphries, 1999). There are also position papers and descriptive accounts of various strategies to support the academic progress of Indigenous students (e.g., Blanchard et al., 1999; Brennan et al., 2005; Harrison et al., 1998; Holt, 2005; Keefe, 1990; Luck, 1998; Mieklejohn et al., 2003; Mills, 2001; Omeri & Ahern, 1999; Thomas & Farmer, 2005). Many of these reports identify a range or factors, including personal, family, financial,

and other social issues that inhibit success. While there is reference in these reports to academic issues, the attention is minimal and constitutes one factor among many. On an evidence basis, issues associated with academic content, academic skills, and teaching and learning approaches are not assessed as critical determinants in Indigenous students' decisions to persist or withdraw. Nevertheless the literature does consistently confirm, identify, and report that academic issues do provide difficulties for Indigenous students and that academic support is an essential factor in the success of many Indigenous students, especially those who enter university under-prepared.

#### Academic issues & performance

The academic issues identified in these reports and studies can be categorised as: under-preparedness; course organisation within faculties; recognition of Indigenous content and knowledge; teaching and learning approaches; and academic literacies associated with disciplinary conventions.

For example, both students and academics have identified the need for better academic preparation before starting courses (See Bourke et al., 1996; Burden et al., 1998; Nugent & Arbon, 1994; Sonn et al., 1996; Tennent et al., 1996; Usher et al., 2005) and various interventions and programs have been developed across the country. Content and knowledge issues are consistently identified as relating to: inclusion/exclusion of Indigenous content, the need to make programs more relevant to both urban and traditional community experience, the treatment of Indigenous content, and concerns about the devaluing of Indigenous knowledge and Indigenous students' experiential knowledge (See Sonn et al., 1996; Bourke et al., 1996; Malcolm & Rochecouste, 2002). Teaching and learning issues identified in these reports include the preference for hands on, practical learning over theory-based learning and an identification of the demands of academic conventions as "white man's way" (See Bourke et al., 1996; Malcolm & Rochecouste, 2002; Page et al., 1997). With regard to specific academic skills, these reports confirm that a broad range of academic skills difficulties have been consistently identified over time and academic under-preparation, language difficulties, and unfamiliarity with academic and disciplinary conventions are all implicated in these difficulties (e.g., Malcolm & Rouchecouste, 2002; Nugent & Arbon, 1994; Penfold, 1996; Usher et al., 2005). The findings of these reports, for the most part, draw on Indigenous student perspectives and experiences of university. There are also some descriptions in the literature of strategies designed to address Indigenous academic literacy issues (e.g., Carmichael, 2000-2001; Morgan & Kutieleh, 2004; Rose et al., 2003).

# Research into Indigenous students as learners in higher education

Some research has attempted to understand Indigenous tertiary students as learners. This area of research has included: approaches to learning (Robertson, 1996); Indigenous students' conceptions of learning (Boulton-Lewis et al., 1997, 2000, 2001, 2003; Bunker, 1999; Wilss et al., 1999); preferred learning styles (Barnes, 2000); verbal reasoning abilities (White 1996); Indigenous student-non-Indigenous tutor interactions (Demosthenous, 2004); literacy issues (Malcolm 1996; Malcolm & Rochecouste, 2002, 2003); and critical thinking (Harrison, 2004). These studies are also useful for understanding Indigenous students. This field of inquiry has largely been approached from the perspective of Western educational theories of learning to determine how Indigenous students differ from other students and what implications this has for their learning, academic preparation or support.

With the bulk of what we know about Indigenous student performance emerging from position papers, descriptions of practice, or from studies with a broader focus, the discussion of academic issues for Indigenous higher education students within the literature illustrates a pertinent point that Malcolm & Rochecouste (2003) also make with regard to Indigenous academic skills research, that the work so far done has been:

either broad brush (and therefore not concerned with the details ... ) or based on the gathering of opinions or impressions. There is a serious lack of data on the ways in which Indigenous students in higher education perform ..., and the literature is overweighted with advice rather than analysis (2003, p. 16).

#### Learners as negotiators of complex intersections

At the heart of changing tensions between academic support, teaching, and learning contexts and all these reported performance issues are Indigenous learners. While Indigenous students do not identify academic skills or teaching and learning issues as critical determinants in decisions to persist or withdraw, they nevertheless identify them as issues that affect their performance in higher education. Challenges are intensified when students are academically underprepared. Accessing meaning in course content, analysing different positions, and expressing (verbally and in writing) one's own position in relation to these as required in academic tutorial and assessment regimes becomes much more of a challenge under these conditions (Nakata, 2007a; 2007b).

However, as reported in the literature, the academic issues that challenge Indigenous learners go beyond

questions of academic skills alone. They extend to and intersect with teaching and learning (curricular and pedagogical) issues associated with the Indigenous content of courses and the place of Indigenous experience, perspectives, content or knowledge in the academy. These "for Indigenous students" and "about Indigenous content" issues are a topic of inquiry and discussion in Indigenous studies as well (Nakata, 2004). Collectively, the study of the Indigenous academic performance and Indigenous studies literature confirms that, for Indigenous students, academic difficulties emerge from more than a simple deficit of the requisite academic skills for working within disciplinary knowledge, conventions and practice. The literature in the main reminds us that academic concerns for Indigenous students also emerge around the teaching and learning issues associated with the inclusion/exclusion or treatment of Indigenous knowledge and content in courses. It reminds us as well that academic concerns also emerge around unease that academic discourses and paradigms of the Western disciplines often fail to capture understanding of Indigenous issues, as students or the Indigenous community experience them. There is a further concern expressed in the literature that immersion in the knowledge and conventions of the academic disciplines risks undermining cultural identities of students and cultural ways of learning through assimilative tendencies (Walker, 2000; Malcolm & Rochecouste, 2003). Clearly, across the literature and confirmed by wide anecdotal reporting, many Indigenous students confront complex challenges in negotiating their engagements with concepts, conventions, and practices of established disciplines, while maintaining the standpoints forged in their experiences of being Indigenous.

Although the range of support measures in place to assist Indigenous students to access, participate in and complete higher education programs could be considered institutional measures of accommodation, it can also be surmised that academia itself has been less accommodating. That is, Indigenous academic support measures tend to remain outside the main work of disciplines. The literature on Indigenous student performance, discussed above, quite consistently confirms that adjustments to curricula and pedagogy remain minimal in the disciplines, and in mainstream courses and programs, and are most evident in special Indigenous programs run by or in conjunction with Indigenous academic staff. Apart from these special Indigenous programs, the development of the "discipline" area of Indigenous studies as subjects, streams, and majors in "mainstream" courses has been the predominant method of inclusion of Indigenous content into other courses. Frustration with the patchiness and limits of this approach has led to more recent activity in some universities to embed Indigenous perspectives across disciplines and

courses (See QUT, 2003; USQ, 2007). But as McInnis (2003) pointed out in reference to the "mainstream" context, while teaching and learning is under pressure to change "there are considerable obstacles in the way of major changes to curriculum design and delivery" (p. 398). Across Australian universities, the Indigenous academics attempting to embed Indigenous perspectives or augment the offerings in Indigenous studies strands would attest to the obstacles.

As recognised by this conference series, the issues around the representation of Indigenous knowledge and Indigenous studies content are the site of intellectual contestation within the academy (Phillips et al., 2007). This is a site for intellectual inquiry and for new knowledge production. It is also the site of Indigenous students' learning. For almost all Indigenous students, learning begins on these contested grounds. With roots in different theories and epistemologies of knowledge systems, in different sets of historical experience, informed by critiques of colonialism, mystified and often overwritten by the conventional practices in the disciplines, these are difficult and complex intellectual and learning spaces to navigate. Navigating these spaces is challenging for both students and academics, Indigenous and non-Indigenous alike. Such contestations are unlikely to be resolved satisfactorily within the teaching and learning context in the near future, despite attempts in various places to "indigenise" curricula or embed Indigenous perspectives across the teaching areas (Nakata, 2004).

Yet the literature discussed above confirms that content, knowledge and perspectives issue, clearly cause frustration, alienation, and/or emotional entanglement for Indigenous students studying in the disciplines. These frustrations are a bigger challenge for Indigenous students who do not have adequate academic skills to engage, analyse from their own experience, and generate alternative accounts that meet academic requirements. However, the literature fails to tease out the implications of the interplay between skills levels and academic content issues for the quality of learning engagements or for outcomes. Are these frustrations with content and lower skills levels implicated in, for example, superficial learning engagements, disengagements, and intellectual separatism? How are students positioned or equipped to work productively in contested knowledge spaces in preparation for professions or for deeper disciplinary contestation at postgraduate levels? Nor does there appear to be research that illuminates how successful Indigenous students navigate and negotiate contested positions in knowledge while maintaining and developing their own intellectual positions for productive Indigenous ends and to satisfy academic requirements. If as academics we are challenged to articulate the complexity of our position in relation to disciplinary knowledge and our contestations with the academy, what does it say of our expectations of

students if we maintain the separation between skills/ content issues or if we deny either is not part of the same challenge?

#### New tools to challenge the rules of engagement

The development of "generic" academic literacy skills to assist Indigenous students to meet the demands of disciplinary practices and conventions is, by itself, insufficient to deal with these contestations. For Indigenous students "the acquisition of tertiary or academic literacy is not a simple situation of acquiring another way to speak or write to succeed at university" (Malcolm & Rochecouste, 2003, p. 25).

We suggest the situation requires the serious consideration of Indigenous learners as navigators and negotiators in a contested knowledge space. This prompts the serious consideration of what additional or different skills and tools Indigenous students need to develop in tandem with generic academic skills. What do they need for thinking, learning, and producing academic work in this space to assist them to articulate their own positions which draw on the knowledge and experience of being Indigenous?

Insights into how Indigenous students experience the demands of learning while navigating complex intersections on a range of levels, is a much needed area of investigation (Nakata, 2006). To adequately skill students requires that we first understand how they experience and process the intellectual demands. Then we can ask, for instance: What options and strategies can students develop and use to draw attention to these matters, as these emerge in their learning engagements and so direct their own learning in more constructive, meaningful, and useful directions? How can Indigenous students be upheld and developed as "thinkers" in these complex spaces before we expect them to be "knowers" of academic knowledge and/ or generators of their own or of "new" perspectives on knowledge? What sorts of conversations and discussions do they need to have with themselves and in interactions with others? We need a more detailed understanding of these demands as they emerge in students' learning engagements, and a more detailed understanding of how individuals attempt to manage these demands. We need to understand these demands as they emerge in preparatory, through transition, to deeper learning stages in third and fourth year and at postgraduate levels.

The theory and practice work of some scholars (e.g., Lawrence, 2000; Carmichael, 2001; Harrison, 2004) draws attention to the importance of critical skills for understanding Western disciplines, discourses and conventions, and for a more situated reading of knowledge and practice. While such critical skills are fundamental to Indigenous students' skills set, the skills for drawing in Indigenous knowledge and experience to generate more productive analytical engagements – that go beyond critique – is an additional step.

This signals a different approach to resolving the retention-persistence tension that is currently expressed via arguments about institutional accommodation of diversity versus individual Indigenous accommodation of academic practices. Rather than foster the expectation that the content of curricula and pedagogy must first change to provide satisfactory opportunities for Indigenous students to engage more meaningfully, this approach seeks to equip students to engage productively with the corpus of Western knowledge, whatever the conditions of this knowledge in terms of exclusion, omission or misrepresentation of Indigenous standpoints. If Indigenous students are viewed as bringing assets in the form of their own knowledge and experience into their learning engagements, then they already have the grounds from which to contest, even when the Indigenous perspective - or their own individual one - may be absent or misrepresented in course content. If we acknowledge Indigenous students' assets, then what do such students require, in terms of skills, to be able to legitimise the inclusion of their own experience and knowledge? How are they to do this to a standard that satisfies academic practice? If there is a departure from academic practice, then what or who or how are students to determine whether there is sufficient rigour to their intellectual arguments? In making contested claims on experiential or undocumented Indigenous knowledge, what are the standards to be? As academics, how are we to discuss and what are we to do to equip Indigenous students to engage credibly from the academy's point of view and with some satisfaction from the Indigenous point of view, under these conditions?

These conditions of Western knowledge are an important site for Indigenous intellectual and critical inquiry, for it is from this location, or in the shadow of this knowledge, that Indigenous students must illuminate and articulate their own position, forged also from within their own experiences of being Indigenous. The purpose of higher education, especially education for professional practice in Indigenous contexts, is to engage, contest and re-think current understandings about Indigenous issues. Building better grounds for successful Indigenous educational outcomes goes to the heart of building Indigenous futures. The generation of effective practices in Indigenous contexts involves getting beyond reliance on ideological and oppositional discourses and requires a "working out" from inside both Indigenous and disciplinary sets of understandings.

How to equip students to draw in their own experiences, develop their analytical positions while upholding an Indigenous standpoint to contest and "grow" the academic discourse to be inclusive of their own positions, is an under-explored area of research. Some students do manage well. But how do they negotiate these contested spaces? What are their strategies? How skills-dependent are these strategies? Can they be described for others to use? Can students be supported in their engagements with content, in specific ways, to develop useful strategies as part of their repertoire of academic skills? Are there particular pedagogical approaches more conducive to support these? Are there implications for academic preparation, special entry provisions, and ongoing academic support?

Research focus in this area is required to shed light on the interplay between skills and content issues for Indigenous students and needs to connect both with academic skills support and academics' professional development in teaching and learning. It is one thing to provide a basis for considering how attention to these issues can be inserted into academic preparation, transition, and support programs to enrich and expand the repertoire of skills or tools that Indigenous students need to engage with the disciplines on their own terms and for their own needs. But a fine-grained analysis of Indigenous student's learning engagements and strategies for working within the disciplines to uphold Indigenous standpoints should produce data that will also inform teaching and learning practice and professional development for academics in faculties. What can academics come to understand of Indigenous students who must "struggle on their own" to engage with course content in ways that are meaningful and purposeful for their own future professional goals and for collective Indigenous ends? What strategies and skills can academics and tutors, including Indigenous ones, develop and integrate to scaffold and support students' engagements with content? What strategies can tutors develop to shape discussion that provides better opportunities for negotiation between Indigenous and non-Indigenous meanings?

This approach also moves beyond concerns about Indigenous attrition and completion rates. It is likely to have bearing on the quality of Indigenous students' preparation for professional practice in a range of Indigenous contexts. The tools that Indigenous students learn to help them navigate and negotiate complex knowledge terrain in learning engagements are anticipated to be transferable to generating improved practice in complex Indigenous contexts, for example, in health practice, governance areas, economic development, law, and business. Working in these contexts requires constant negotiation between different systems of thinking and practice, and understanding of people's historical experience of these intersections. Indigenous learners' engagement with the disciplines is a specific, specialised example of what Indigenous Australians deal with everyday as they interact with broader institutional practices and conventions. Research in this area should also produce data significant or transferable to the preparation of non-Indigenous graduates for work in Indigenous contexts. Most importantly it will extend discussions in the literature.

# Summary

Deeper knowledge and understanding of Indigenous students' engagements with course content and demands of established disciplines "as they learn" to articulate their own position in relation to what is presented in courses is required to inform how specific "tools for engagement" with the disciplines can be developed. Many Indigenous students who come to university academically under-prepared are motivated to improve Indigenous futures through their choice of profession. They bring with them important knowledge and experience that is not wellrepresented in the disciplinary knowledge base or course content and are left to navigate and negotiate on their own across a conceptual gap. The continuing gap between Indigenous and non-Indigenous educational outcomes in many ways reflects the failed attempts at theoretical solutions in the conceptual space between Western and Indigenous knowledge and practice, where gaps in understanding from both sides contribute to failure. But it is in this gap where the possibilities for producing more useful "intersubjective" understanding clearly reside.

The need for empirical data to shed light on this neglected aspect of academic preparation and skills support for Indigenous students entering tertiary study is crucial if we are to mount a concerted effort to close the gap. The need to understand Indigenous students as learners who are required, in many learning events throughout their study, to negotiate the complex intersections between their own knowledge, perspectives and experience and the authoritative knowledge of the disciplines they must engage with in their courses is both urgent and at the centre of quality, successful Indigenous education.

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