

Closing Gaps in Indigenous Undergraduate Higher Education Outcomes: Repositioning the Role of Student Support Services to Improve Retention and Completion Rates

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The current change agenda to improve the persistently lower rates of access, participation and outcomes of Indigenous Australians in higher education is a broad one that attempts to address the complex range of contributing factors. A proposition in this paper is that the broad and longer-term focus runs the risk of distracting from the detailed considerations needed to improve support provisions for enrolled students in the immediate term. To bring more attention to this area of indicated change, we revisit 'the gaps' that exist between the performance of Indigenous and all other domestic students and the role that student support services have to play in improving retention and completion rates of enrolled Indigenous students. We outline some principles that can guide strategies for change in Indigenous undergraduate student support practices in Australian universities to respond to individual student needs in more effective and timely ways. These are illustrated using examples from the redevelopment of services provided by an Indigenous Education centre in a Go8 university, along with data gathered from our ARC study into Indigenous academic persistence in formal learning across three Australian universities.

■ **Keywords:** Indigenous Australians, higher education, student support, student services, professional development

In Australian universities, the provision of personal and academic learning support for Indigenous students has long been a key strategy for enhancing Indigenous student success. In the main, personal and cultural support has been organised and provided by Indigenous staff in Indigenous Education Units (henceforth IEOs). Nationally, the bulk of academic learning support has been provided in the form of individual supplementary tutorials by nonIndigenous tutors, through the Commonwealth government's former Indigenous Tutorial Assistance Scheme (henceforth ITAS). In some universities, learning support for Indigenous students has also been provided from within faculties or particular disciplines, although to a much lesser extent. However, in most universities, both forms of support have been the responsibility of IEOs.

The final report of the Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander people (henceforth 'the Review'; Behrendt, Larkin, Griew, & Kelly, 2012) called into question the effectiveness of these provisions, documenting the differences between Indigenous and nonIndigenous domestic students' in terms of enrolment, retention and completion rates. Using Commonwealth higher education statistics, the Review noted that in 2010 Indigenous retention rates were 63.4% compared to 79.8% for nonIndigenous

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students. In the same year, '40.8% of Aboriginal and Torres Strait Islander students who commenced a bachelor course in 2005 had completed their course, compared to 68.6% of nonIndigenous students' (Behrendt et al., 2012, p. 7). More recent data in 2013 shows Indigenous enrolments in the higher education sector at 1% of all enrolments and 1.2% of all commencements (Wilks & Wilson, 2015), and in 2014 the data reports Indigenous completion rates at 46.7% (Edwards & McMillan, 2015).

In relation to student enrolment, retention and completion, the Review set down Indigenous population parity rates for enrolment (2.2%) and commensurate rates of retention and completion for Indigenous and non-Indigenous students as the targets to be reached for all enrolled Indigenous students (see Recommendations 1 & 2, Behrendt et al., 2012, p. xv). Following the handing down of the Review's Final report, Australian universities, their faculties and the Indigenous Education Units within them, have come under increasing pressure to demonstrate that services and programs they provide have a substantive impact on Indigenous students' academic success; though the report itself was short on details for achieving this success.

Clarifying the Role of Student Support Activity in Closing 'The Gaps'

Closing the gap between Indigenous and other students is clearly an overdue and urgent national priority. However, when it comes to proposing changes to institutional and educational approaches and practices to close the gap, the breadth and depth of the complex variables and contributing factors that affect Indigenous higher education outcomes can distract from clarity of focus in the undergraduate student support area. Following the Review recommendations, there has been increased attention given to the broader areas implicated in Indigenous higher education outcomes. These include outreach into schooling and communities, the development of external partnerships, access pathways, teaching, learning, knowledge and curriculum areas, Indigenous research, graduate employment pathways, Indigenous employment and governance issues within universities, and the cultural competency of nonIndigenous staff (Behrendt et al., 2012). These are all critical pieces of the 'improving Indigenous outcomes' puzzle nationally and in different universities over the longer term. The increase in attention to the complexity of the broader picture is leading to a more complex assemblage of educational interventions across the spectrum of the educational journey from school or community into and through higher education and beyond (see Behrendt et al., 2012; Kinnane, Wilks, Wilson, Hughes, & Thomas, 2014; Naylor, Baik, & James, 2013). More universities and IEUs are now engaging in a widening range of outreach and preentry activities, extending further back into schools and communities than they

once did. These are time- and resource-intensive activities and universities and IEUs are under pressure to develop more collaborative relationships with donors, industry and other educational providers in order to develop and sustain them. Uncertain and uneven funding across universities continues to reduce the consistent development of preentry programs across universities and/or disciplines.

The value of outreach and preentry activities has long been recognised by IEUs for both recruitment and university preparation purposes. The metaphor of a 'pipeline' has been used to describe the passage of students into (access) higher education (e.g., Anderson & Pechenkina, 2011, p. 12; Universities Australia cited in Behrendt et al., 2012, p. 15). The rationale of preentry activity is to 'increase the pool of tertiary ready Indigenous students' as a way to improve transition outcomes and 'the likelihood of successful completions' (Anderson & Pechenkina, 2011, p. 6). Programs that enlarge the pipeline by improving access and readiness will almost certainly lead to increases in enrolments and, as a result, some flow on increases in the number of students who complete their degree. However, strategies designed to keep enrolled students in the pipeline are just as important for boosting overall rates of participation and even more important if the rates of retention and completion are to improve in the immediate term. Keeping enrolled students in the pipeline is a key role for student support services.

Within the expanding range of activities of Indigenous student support units, we argue that it is important that undergraduate student support remains a well-defined area of specialised activity with a change agenda focussed on how to improve progression and completion rates of students during their course of study. Two recent reports serve as good examples of documents that do assist the clarification of the role of undergraduate student support to improve these rates but also, somewhat paradoxically, contribute to its submergence on the broader spectrum of interventions to improve access, participation and outcomes. These are the Critical Interventions Framework for advancing equity in Australian higher education (Naylor et al., 2013) and Notre Dame University's Final report on the transition of Aboriginal and Torres Strait Islander students into higher education (Kinnane et al., 2014). Both contain very useful schemas for locating undergraduate student support along the continuum of educational stages where strategic interventions can improve the chances of success for educationally disadvantaged students and Indigenous students, respectively (Kinnane et al., 2014, Leading Practice Framework, pp. 110–120; Naylor et al., 2013, Fig 4.1, p. 37). In both reports, these schemas are based on analysis of the relevant literature and in the case of Kinnane et al, interviews with relevant stakeholders also. Both address strengths, limits and gaps in knowledge and evidence about the effectiveness of interventions. The detail that feeds into Kinnane

et al.'s Leading Practice Framework is particularly useful for understanding the breadth of activity required prior, at point of entry and during the course of a degree program to improve Indigenous students' chances of successful completions. At the same time, this schema illustrates how the critical factors for support interventions for enrolled undergraduates become only one small part of a widening support agenda concerned with 'the whole of education journey'. If the focus on critical interventions aimed at improving outcomes is weighted towards pre-entry, there is a risk that less attention will be placed on thinking about what sort of changes might be indicated for 'critical interventions' aimed at undergraduate student support.

This is particularly the case given the nature of the Review's recommendations in this area (Behrendt et al., 2012, p. vii). In line with its scope, these are aimed at the broader organisational arrangements for Indigenous student support within universities. In relation to improving the success of enrolled students and acknowledging the range of challenges that IEOs face in providing adequate support to students, the Review advocated a major shift from the established practice in many universities of centralising Indigenous student support in IEOs. The final report recommended, 'that universities adopt a whole-of-university approach... so that faculties and mainstream support services have primary responsibility for supporting Aboriginal and Torres Strait Islander students, backed up by Indigenous Education Units' (Recommendation 10, p. 52). It suggested that Indigenous Education Units could back-up faculties and mainstream support services by promoting 'value-added, specialised support over and above what should already be provided through faculties' (p. 50). The Review also suggested that this value-added, specialised support could include an extended role for Indigenous Education Units to provide 'advice and guidance to mainstream support services to help them improve their ability to meet the needs of Aboriginal and Torres Strait Islander students' (p. 51). Importantly, the Review noted, 'Across the sector, there will be no "one size fits all" approach that can be applied as each university offers a unique environment... ' (Behrendt et al., 2012, p. 47). The Review further argued that 'there is no single best practice model' but that '[s]upport must be tailored to best suit the student profile of the institution and be designed in close collaboration with the faculties' (p. 51). Beneficially, the Review has encouraged universities to develop explicit universitywide Indigenous education strategies that respond to the broader change agenda and press faculties and student service sections to do more to meet the needs of enrolled Indigenous students.

While understanding the Review's rationale for organisational changes, we argue here that any agenda for change in student support provisions requires knowledge of what Indigenous students' support needs are and care-

ful thought about what sorts of responses or interventions would assist them to stay in study, succeed in subjects and progress through their degrees in a timely manner. The evaluation of support strategies against student outcomes would appear to be an important measure for both effectiveness and accountability of support services in each university, whether it is organised through faculties and student services or through IEOs or through all three entities. National statistics cannot provide feedback on the effectiveness of specific strategies in universities. They do however signal the gaps that student support measures must address and so provide a focus for thinking about support strategies.

Reconceptualising the Meaning of Gaps in Retention and Completion Rates for the Support of Indigenous Undergraduates

The gaps most commonly described in Indigenous higher education are statistical measures of Indigenous participation and outcomes at different stages of the higher education journey through a degree — access, retention, completion — compared to those of nonIndigenous students. The gaps that Indigenous undergraduate student support interventions are charged with closing are the gaps in retention and completion rates between Indigenous and other domestic undergraduates (Behrendt et al., 2012). The first measures the number of students retained in study from one year to the next and completion rates measure the number of students who complete their degrees, generally within a specified time frame, for example, in a five-year period from commencement.

The proportions of the Indigenous student cohorts who enter Australian universities with the requisite scores and who could be said to be 'academically prepared' have been and continue to be very small (Behrendt et al., 2012; Wilks & Wilson, 2015). This means that the majority, about 80–90% of enrolments nationally, come in through alternative entry provisions. The 'access' gap represents the gap between community or school experience/outcomes and the entry demands of universities. In this way, it is viewed as an exclusionary barrier that can be lowered by institutions as an affirmative equal opportunity action, in the interests of social justice — a gap that can be bridged by students through preparatory or transition remedial interventions. We would agree that the access gap is an indicator of and for all these things but suggest that it is the educational implications of the access gap that need close consideration when designing effective support strategies for students once they are admitted to degree programs. Being 'underprepared' for the academic demands of the teaching and learning environments of higher education produces major personal challenges for many students, in addition to those related to external factors. The educational challenges of Indigenous students once enrolled are well documented and appear to have been remarkably

consistent over time (e.g., Bourke, Burden, & Moore, 1996; Malcom & Rochecouste, 2002; Nakata, Nakata, & Chin, 2008; Oliver et al., 2013; Page, DiGregorio, & Farrington, 1997). We argue that it is not enough to understand these challenges in a general sense or as primarily an entry hurdle, which can be quickly overcome by students' voluntary subscription to available transition and/or remedial activities. Nor is it enough to generalise the educational implications in terms of the needs of the Indigenous student cohort as a whole. While it is important to begin from the general knowledge of Indigenous student challenges, it is more critical to understand these from the position of individual students. That is, the implications of Indigenous alternative access provisions are more strategically useful for support staff when conceptualised in terms of what educational challenges this access to higher education will present for each Indigenous student who enters. This enables a repositioning of the focus of undergraduate student support from the access gap to the comparative one between the educational starting points of Indigenous and nonIndigenous students. These educational starting points have different impacts for different individuals, in different universities, different degrees, different subjects and for different educational and academic tasks.

If Indigenous students are to match the retention and completion rates of other students, then learning support practices have to be developed so that *each* student has the optimal support conditions to stay in study and academically progress towards completion over the course of a degree. Further, this progress should place Indigenous graduates on par with all other graduates in terms of the quality and competitiveness of their degrees in the employment market. We stress that it is extremely important that the focus on the educational meaning of 'the gap' between Indigenous and other domestic students is directed towards the student support effort and not directed towards the characterisation or typification of Indigenous students. The former makes it quite evident to student support staff that they need particular sets of information about each individual student in order to anticipate and meet the needs of all their students, and provide support earlier enough to enable success and avoid failures. This may seem obvious, and yet is often underrecognised. The question, 'what do I need to do to ensure each student receives assistance when it is needed', provides a prompt for those charged with the responsibility for undergraduate support. What sort of information do support staff require about each student? What sort of supportive interventions will assist students and close these gaps? How are these interventions to be delivered for a large number of students? How does the work of student support have to be organised to do this?

One way to think through how to do this is to consider and clarify the relevance of other gaps between

Indigenous and nonIndigenous students: success rates and progress rates, in addition to retention rates. Retention rates (keeping more students in study), success rates (increasing the number of subjects a student passes in a year) and progress rates (increasing the number of subjects passed as a proportion of the number of subjects enrolled) focus closer attention on monitoring students and timely support interventions. Keeping students in study, for example, requires staff to keep abreast of student's study conditions (finance, accommodation, health and family issues, work and/or carer obligations). Alongside this, working to improve success and progress rates require staff to know what disciplines and subjects students are enrolled in, what their study load is, and how they are managing in each subject. Attention to the incremental progress of students over time becomes a major consideration in the design of support strategies. This involves finding ways to ensure that more students are assisted to push through personal challenges or difficult circumstances, succeed in each course, progress from year to year, and complete in a shorter period than they currently do. Improving the ability of support staff to meet individual student support needs therefore has implications for the functions, processes, roles and organisation of undergraduate support work.

The change process required to design a new suite of strategies or reorganise roles and ways of doing things comes with its own challenges. Change is often a difficult process and what needs to change is not always easy for staff to determine. More effective support strategies, as the Review noted, should ideally emerge in response to the specific context of a university and the needs of the Indigenous student cohort within that university. This requires the development of site-specific strategies. Nevertheless, we argue there are some useful guides or principles, if you like, that could be applied to inform the development of specific strategies in different contexts. In what follows, we briefly sketch a range of principles or areas of practice that may help to guide the change process and rationalise on-time critical interventions in Indigenous undergraduate support. To do this, we draw in some documented change in progress at Nura Gili, the IEU at the University of New South Wales, Australia (henceforth UNSW) over the last five years and some of the data collected for an ARC project on Indigenous persistence in higher education. Although the Nura Gili leadership has directed the change agenda, staff have devised the strategies and implemented the changes that have occurred. The change agenda directed the development of academic learning support, as well as early and in-time interventions to prevent student withdrawal and/or subject failures. As staff trial and refine different approaches to keep abreast of student needs, a more specialised set of knowledge and skills is emerging, with one outcome being a more professionalised staff and more clearly defined roles.

Separating and Integrating Academic Learning Support and Personal Support

Distinguishing the lines between academic and personal support and placing equal emphasis on them is an important element of meeting the various and sometimes rather complex needs of Indigenous students. The relationship between students' personal circumstances, their ability to stay in study, and their success in learning is a close and intertwined one, requiring these two strands of the support effort to work well together. Students do not always have efficacious strategies for determining and/or overcoming personal, emotional and academic challenges that affect their ability to succeed. As in many IUEs, in the past, Nura Gili learning support was primarily the management of ITAS and the role of a part-time general tutor within the student support unit. The change agenda placed an emphasis on a clear definition between learning and personal support and more balance in the staff numbers allotted for each purpose. A five-member learning support team with education qualifications was assembled over time with the goal of reaching manageable student caseloads. Learning support staff are tasked with anticipating and monitoring student needs and organising appropriate and timely support for them. They advise, mentor and sometimes perform tutoring functions or provide student workshops but a large part of the role is monitoring and following up on student educational needs and progress. ITAS remains the primary strategy for academic learning support. Learning support staff are mostly nonIndigenous staff employed for their skills, in the absence of competitive Indigenous applicants. While initially this induced some anxiety and resistance from Indigenous support staff, workshops and staff development enabled each team to see the importance of each of these areas to students and to work together closely by sharing information and referring students back and forth as required. This has allowed the necessary integration between personal support and learning support in a way that recognises the specialised knowledge and skills required for each, the role of both in student retention, success, and wellbeing, and the role of student well-being in retention and success.

The integration of learning and personal support also occurs at another level between learning support staff and the faculties and between personal support staff and student services in the university. Nura Gili relationships across the university are an important part of avoiding isolation and utilising the faculty and student services that already exist. Faculty liaison or coordinator positions for Indigenous students exist in faculties where there are significant numbers of Indigenous students or where the challenges of the discipline indicates the need, or where faculties are striving to build Indigenous student enrolments and understand their challenges, for example, Medicine and Law and more recently Business.

Normalising the Use of Academic Learning and Personal Supports

Student support practice in many IUEs relies on students to take the initiative when seeking help. In our experience in some places, this expectation has been rationalised as a way of making students take responsibility for their own learning. However, not all students find it easy to ask for help, for a range of idiosyncratic reasons. Even following participation in pre-entry university experiences, many students are overwhelmed in the initial weeks and what happens in these weeks is critical to student success in first Semester subjects and early decisions to withdraw or stay in study. To overcome this, personal and learning support staff take advantage at every point in the pre-entry, preparation, prospective student enquiry, recruitment, selection, admission and orientation processes to emphasise to students the value of using every support that is available to them. In addition, Nura Gili support staff devised a strategy specifically aimed at reducing attrition rates before the HECs cut-off date, in the crucial early period when significant numbers of students were withdrawing or deferring. Known as PATS learning and personal support staff share the task of contacting every commencing student (generally around 70–80 students) and asking four simple questions related to: how they are travelling (*Pastoral care needs*); how they are finding their courses (*Academic learning*); how they are settling in to uni (*Transition*); and is there anything staff could help them with (*Support needs*). As well, all staff (including management and Indigenous Studies academic staff) are encouraged to ask these questions of students in all year levels, whenever they have informal contact with them in or outside of Nura Gili throughout the year. This intervention expresses one of Nura Gili's key platforms in student support — an ethics of care for *all* students' progress and wellbeing, not just those who seek assistance.

In the first year this strategy was trialled, attrition among commencing students reduced to zero in this period and in the years since, the numbers have remained extremely low in comparison to pre-PATS years. The PATS strategy enables staff to increase their knowledge of students and individual student's levels of anxiety, loneliness, panic and confusion and to remind students that no issue is too minor or trivial or too large and serious for support staff. In this way, the strategy helps to normalise student support as a legitimate form of assistance that can enhance students' chances of success. The PATS strategy reinforces the Nura Gili principle of both separating and integrating learning and personal support by reminding students that there is support for personal wellbeing issues and support for academic learning issues. It consolidates messages given to students in the pre-entry, admissions and orientation stage. Importantly, it catches those Indigenous students who have not participated in pre-entry, alternative entry and orientation programs prior to commencement.

Utilising the Selection and Admission Process for the Collection of Individual Student's Diagnostic Information

If Indigenous students' success and progress rates are to improve, then tracking their progress and knowing when to intervene are critical aspects of the student support task. Knowledge of individual student's strengths and vulnerabilities is therefore essential to support them effectively. In some IEUs, it continues to be the case that support staff do not know all commencing students, their alternative entry pathway, their personal circumstances or programs of study. The benefits of individual profile information and diagnostics are that staff can familiarise themselves with commencing students each year and begin to anticipate student support needs prior to the start of Semester 1. Once again, the principle of separating and integrating academic learning and personal support is strengthened in this process by both support teams being involved in information gathering at the selection and admissions stage. A student's mode of entry, level of educational attainment, years since last period of study, English language and/or remote status and program of study are important information for learning support staff. For personal support staff, the gathering of personal profile information is also important to anticipate needs and understand students' circumstances. Some of the profile indicators that help identify student vulnerabilities or threats to retention and success include the following: uncertain or limited finances; uncertain or unsatisfactory accommodation; residential distance from campus; away from home for the first time; working and/or caring as well as studying; first in family to attend university or health issues or family worries. Here, personal support staff work hard to gather information, resolve financial and accommodation issues before commencement and follow up on student welfare, sharing changes in circumstances or issues that are likely to impact on a student's academic learning with learning support staff.

In relation to alternative entry students without the requisite entry scores, important information about academic capacity through some simple diagnostics at the selection point is critical for learning support staff to gauge what level of support is likely to be required. If the gap is likely to place impossible demands on a student, then a decision is made about whether they enter or are redirected through another pathway. Admitting students who have little chance of succeeding is not supportable but assessment for entry has to be adequate and flexible enough to determine this. As in many other universities, there are different access pathways and preparation programs for entry through Nura Gili that yield different levels of diagnostic information and thus varying levels of predictability about students' capacity to succeed. For example, three to four week intensive preparation programs for some disciplines of study appear to provide

students, faculty academics, and Nura Gili support staff with excellent diagnostic information on areas of strength and areas of academic and personal challenge. However, the collection of even basic baseline entry information has enabled learning and personal support staff to do more preparation before students commence and to follow up more intensively where indicated.

Knowledge of Academic Demands for Individual Student's Learning and Personal Support

If success and progress rates are to improve staff need to understand the academic demands of subjects and what this means for individual students. An important part of improving student support has been the development of staff knowledge about the demands of different subjects and degree programs. Knowledge and auditing of courses and assessment demands has assisted learning support staff in assessing a student's chance of success in a degree program at the selection for admission point, as well as to assess the level of support a student is likely to require. This enables staff to establish how often they should follow up students once Semester starts and to allocate ITAS tutors from Week 1 so students do not fall behind. This knowledge of program demands forces staff to assess their ability to support students, as well as what needs to be in place to ensure that support is given from the beginning and follow up provided until the student can manage.

Preparation and Planning for Early Intervention

Supporting all students effectively requires a degree of preplanning before Semester commences. This includes broad annual planning around the academic admissions and events calendars, but also around the intensive presemester work to ensure staff know as much about students as possible and are organised to support them from Week 1. Tasks include such details as: entering and checking each student's details are in the local individual planning system; flagging vulnerable students; finalising the allotment of student caseloads; anticipating supplementary tutorial needs so student and tutor registration is organised by Week 1; checking and updating continuing student results and progress, and reviews related to improving systems and processes.

The Development of Support Staff Professional Ethics

Any change agenda, requires the development of staff capacities to manage and contribute to the process. Staff need to feel that their knowledge and experience is an important consideration in guiding the change process but also have to be open to examining their assumptions and developing their knowledge and skills. Nura Gili staff articulate a family ethos for the care of students that centres on

an understanding that every Indigenous student should be cared for at UNSW as one would care for their own family. For Nura Gili staff, this translates into a professionalism that puts students first above all else and means having a genuine interest in all students' progress and wellbeing. The simple professional question: 'Does this action serve the interests of students?' is a powerful regulator of workplace culture. Proposed changes to practice can be more easily discussed on the grounds of how any proposal serves the interests of students. This enables productive discussions around areas of personal tension or disagreement.

Another somewhat counter-intuitive development that aided professionalism in Nura Gili was a decrease in student access to staff offices and/or work pods. These were placed behind glass walls and are accessible to students by invitation in special circumstances. Except for personally sensitive and confidential consults, most student consults take place in the common study area or private study retreat spaces. To counter this separation, staff can only reach their offices by walking through the student space, ensuring incidental and informal contact throughout the day. This physical organisation of student and staff spaces avoids a common practice in some IEOs where some students take up residence in staff offices for long periods for social contact rather than a specific purpose related to learning or personal support. Anecdotal reporting indicates that this practice is implicated in some students staying away from centres, which they perceive to favour some students and exclude others. This practice has also been implicated in staff being off task for long periods, under the guise of Indigenous cultural practice. While some staff was anxious about what this change in the physical organisation of office and study spaces might mean for staff-student relationships, it has had beneficial rather than negative effects. More students have contact with staff, and students appreciate that staff are readily available but always at work with students or other responsibilities.

Educational Principles for Student Support

In the primary author's experience in Indigenous higher education, there is uncertainty about how to deal with the issues of Indigenous student dependence on support. Too much reliance on support can perpetuate ongoing dependence or enable a 'learned helplessness' or even lead to an inappropriate sense of entitlement to other's help by some students. On the other hand, some students will not seek support for fear of feeling stupid or being seen as not having succeeded on their own. One way around this is to think about an educational philosophy to underpin support. Nura Gili has been on a journey in this regard. The leadership's change agenda elevated learning support into a primary position, with personal support an area considered critical to supporting students' ability to stay in study and succeed in learning. The agenda for learning support

was to develop the student as an 'independent learner' in preparation for life-long learning. This was to be achieved through early intervention strategies and the individualisation of learning support via Individual Learning Plans (henceforth IELPs) through a pro-active approach to ensure students were supported before, rather than following, crisis or failures. The practical issues associated with Independent Learning Plans (ILPs) caused consternation for learning support staff. Some thought of this in terms of detailed curriculum planning for remedial work in a student's subjects. Leadership stressed capacity development and strength-based approaches not remedial or deficit-based approaches but this was also confusing for staff. In brief, Nura Gili now articulates the development of independent learners as the development of a student's capacity to take charge of their own learning over time (see Broad, 2006).

Clarifying this principle has taken time and has emerged in conjunction with staff reflecting more on the nature of support work and the authors' ARC investigation of the academic persistence of Indigenous students (see also Day et al. in preparation). Data from our interviews with Indigenous students at five different universities reveal that students who can talk about what it is they have to do to succeed in their learning, also talk about different aspects of the learning process. These include mastering difficult concepts and course content, mastering academic skills and performance conventions, and developing and adjusting personal learning strategies and study behaviours (Nakata, Day & Martin, in preparation). Students with more of this metaawareness about the various aspects involved in academic learning were more able to articulate what they were doing in the process of learning and why their learning strategies and study behaviours worked or did not work for them. This awareness of their role in their learning seems to be associated with the ability to take responsibility, to self-direct, and self-regulate their learning strategies and behaviours, in the face of challenges. It does not seem to be associated with the level of learning support they require or their educational history, though this needs closer analysis and has implications for the way support staff identify and assist students to develop this awareness and/or attributes. Repeated interviews over time with some students were also able to reveal how their use of academic learning support also changes over time, as they progress through their degree and take control of their learning. With regard to the use of ITAS tutors, for example, some students reveal how they shift from initially depending on them for assistance with conceptual and skills areas in their first semester or year, to then using tutors to seek clarification and feedback to reassure themselves that what they are doing on their own is on the right track. However, this was not necessarily a uniform progression across all subjects or all students. As they become more familiar with academic expectations and take more charge of their own learning over

time, students also appear to become more attentive to being efficient in their learning and more efficient in their use of supports. ITAS tutors, so we learned in this ARC study, were instrumental in this process, giving students useful tips for managing the volume of course content or staying on track or preparing for exams, as well as important inside knowledge about what lecturers and examiners look for, what was important to know, and what was not so important and so on. In addition, our study so far indicates that as they develop these capacities, students' will to persist with higher education study often moves from the extrinsic motivations they commence with (e.g., pursue a profession, contribute to their communities, help others, be a role model for others) to include intrinsic motivations related to the quality of their engagement in learning. They talk more of incremental goals associated with improvements in mastering knowledge and skills and bettering their own past performance. Some students' levels of self-efficacy move from a determined but tentative self-belief, characterised by self-doubt about their capacity to succeed towards a confident belief that they do have the capacity and are succeeding in higher education study. These insights from current students have been elicited by asking students about their challenges, what they do to try to overcome them, the strategies they use to persist with their studies, and how their learning strategies and study behaviours have changed over time. This does not mean these Indigenous students do not have opinions about the shortfalls of teaching, culturally biased courses or other university practices. The difference is, these students talk about what they do to manage in the face of such obstacles.

Further analysis of these student insights may help clarify some stages through which both learning and personal support staff can assist students to take charge of their learning. While many students initially need what might be classified as a remedial approach to support, the deficit-basis of remedial approaches can be ameliorated by orienting students towards the task of 'learning how to learn' in the academic setting by setting themselves smaller, incremental goals. One implication for support is to assist students to value and develop their own problem-solving capacities — to see themselves as agents of their own learning who are able to influence their chances of success. Another is to develop awareness of different aspects of the academic learning process. Learning support staff with educational qualifications should have the skills to assist students to reflect on what they do and how and in what areas they might try different strategies or adjust their study behaviours. However, the level, length, detail and intensity of support a student requires to do this are highly individual matters and, in our view, are not likely to be automatically resolved through a programmatic response.

The experience at Nura Gili is that the more support students take advantage of and the earlier support is provided or utilised, the more quickly many students are able to move towards independence. At Nura Gili, the early

allocation of individual supplementary tutors through the ITAS scheme has been a critical intervention to support the development of students' capacity to move towards independence and take charge of their own learning. In this context, ILPs have evolved to be a running record of student interactions with learning and personal support staff, beginning with initial profile and diagnostic information, which is used to flag the anticipated level of support a student requires and to prioritise contact and follow up with vulnerable and at risk students. The 'at risk' category of students inevitably shifts and changes as students confront and overcome different challenges over the course of their degree. A student with a very high ATAR on commencement can be as crippled with self-doubt or unhappiness as any other student at any stage of their degree. A very low ATAR or no ATAR student can make more rapid progress towards independence than a student with a much higher entry score. So while educational starting points are essential to understand, they are not in any way definitive of success. The Nura Gili experience is that students develop the capacity to take charge of their own learning in highly individualised ways. Some students are able to access support from a variety of sources, including their families, fellow Indigenous and non-Indigenous students, subject lecturers and tutors, in addition to Nura Gili support services. An ethics of care and the normalising of support assistance ensures that those without other supports are well-supported by Nura Gili staff and that those with other sources of support can still access support from Nura Gili.

The Importance of Local Data Collection for Tracking Student Progress and Evaluating Outcomes Against Student Support Strategies

While national statistics are important in the discussion of gaps in access, participation and outcomes, closing gaps requires efforts in tracking the progress of individual students in different faculties, disciplines and subjects in each university. Local documentation has the potential to tie support activity and student success and progress in a much tighter relationship than is possible when relying on anecdotal reporting or generalised knowledge of Indigenous students. Substantial doubts persist about the adequacy of current university systems and processes for managing Indigenous student information and Nura Gili's attempts to do so confirm this doubt. It has been the most challenging area of all to devise systems for support staff to manage student and other relevant information. To make use of university student data, IEOs must work with university business intelligence systems. IEOs must also work out what information they need to collect through their own work with students so they can track student progress, and manage ongoing contact and follow up. They must

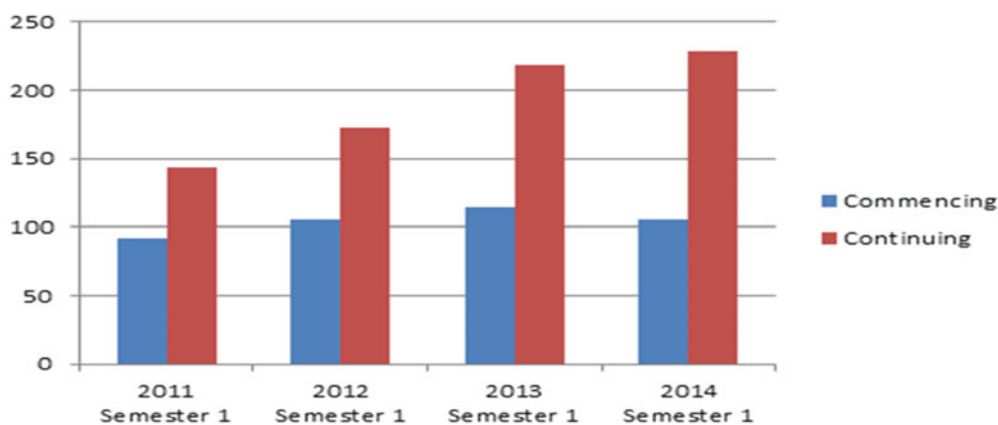


Figure 1.

(Colour online) Indigenous student commencing numbers relative to continuing indigenous numbers at UNSW.

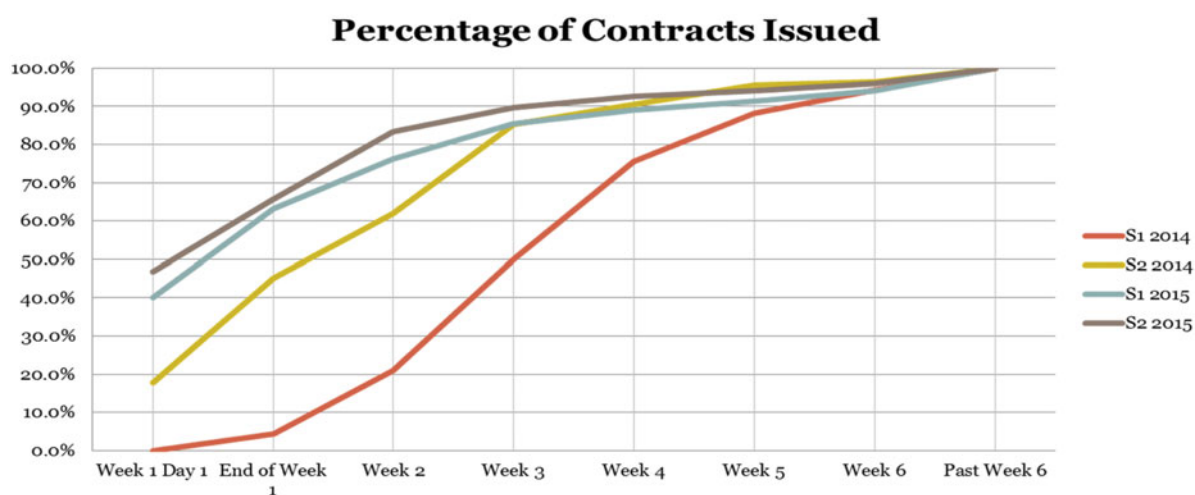


Figure 2.

(Colour online) ITAS contracts issued (graph courtesy of Dr Katherine Neale).

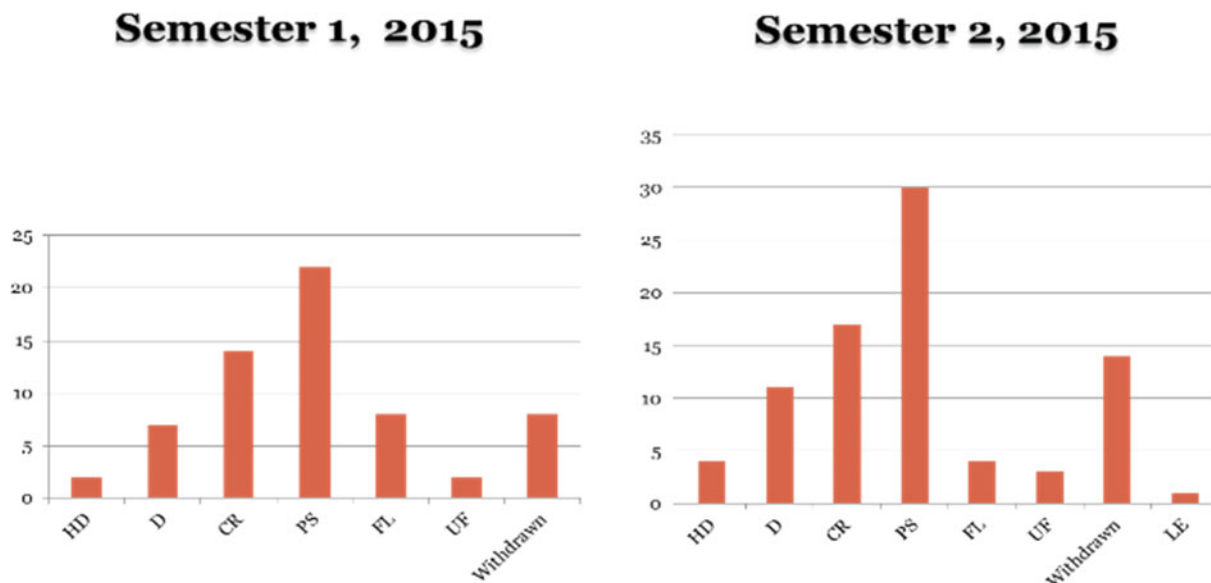
know what information they need for evaluation purposes to analyse the effectiveness of their own support strategies.

The value of tracking and monitoring student's progress and analysing the effect of various inputs on outcomes is well understood and called for (e.g., Behrendt et al., 2012; Kinnane et al., 2014). There is a much slower realisation occurring nationally about just what this will take. The graphs presented in this paper are limited and are examples of the efforts of individual staff to illustrate particular statistics for specialised purposes, for example, staff workshops or presentations. They do not represent any comprehensive effort at evaluation, which is ongoing; rather they are tentative efforts to begin to think about this process. However, the collation of individual student statistics does begin to provide Nura Gili staff with a basis for accumulating future evidence of the value of their early intervention strategies.

The first example (Figure 1 above) illustrates increases in continuing Indigenous student numbers relative to commencing Indigenous numbers at UNSW, which indi-

cates a larger pipeline of students continuing with their studies as each year passes. It is a very simple representation and leaves room for further analysis, contextual information and discussion but it does provide a start. First, this collation reminds management that commencements are relatively static and prompts more thought in that area. Second, it provides an ongoing picture of the direction of progress and prompts further analysis of what elements of changes in practice have made the difference or of any differences in outcomes between student year levels, or faculties, degree programs or subject areas. In the main, the data signals more students are being retained at UNSW year on year; and the more students retained in the pipeline, better the chance for higher completion rates.

Learning support staff at Nura Gili have also been working on ways to graph statistics that they have collected over the previous two years and have been able to represent their progress in allotting ITAS tutors as early as possible. The second example, Figure 2 (above), shows the steady increase in the percentage of ITAS contracts issued by

**Figure 3.**

(Colour online) Student performance in maths units.

Day 1, Week 1 through to Week 6. In Semester 1 2014, no students were allotted a tutor by Day 1. By Semester 2 in 2015, 50% were allotted a tutor on Day 1 and the effort to improve this continues.

This tracking enables staff to assess the learning support unit's progress towards the goals they have set for their work, as well as assisting individual learning support staff to track improvements in particular study areas. The next step would be to analyse whether early allocation does improve results.

The third and final example in the graph above (Figure 3) is an example of the Numeracy learning support officer's analysis of per Semester results of her caseload of maths students. In Semester 1 2015, 99% of her student caseload had tutors from day 1 week 1, and in Semester 2 100% of them did. These were used for a staff presentation and do not provide any evidence of improvements, resulting from her strategies as there is no baseline information. Her results are shown as an example of how to begin to collate results from Semester to Semester so in the future, the effects of changes in support strategies can be better tracked.

There has been a marked increase in pass rates and a decrease in failure rates, with withdrawals from courses showing an increase. Increase in withdrawals from courses may indicate a good result in that students are receiving earlier advice about their chances of success and are opting out of courses before incurring costs. Deeper investigation of these results can also provide useful information about the level of difficulty in courses and feedback for selection decisions or other forms of learning support interventions. Tracking data and local documentation for evaluation purposes enables support staff to do much more than just be on call for students who drop into the centre for assistance. It enables staff to think about what they do to

enhance the chances of student success and to keep refining the effectiveness of their strategies and interventions.

Conclusion

In Nura Gili, learning and personal support staff continue to develop additional strategies to improve their understandings of student needs and evaluate the effectiveness of them on personal, academic and wellbeing outcomes. To be more effective and accountable, the 'what' of student support needs to inform the 'how'. What does it take to support a student to successful educational outcomes in our own universities? How will academically under-prepared, self-doubting or overwhelmed students stay in study and learn to manage independently over the course of their degree. In this chapter, we have only scratched the surface of some of the detailed thinking and planning for building effective student support designs in each university. Our main aim has been to plot some of the areas that might structure a more active approach to undergraduate student support in other contexts. The way we conceptualise the meaning of gaps for students' progress through degree programs affects how we discuss the way to close them. 'Closing the gap' is more than bridging the access gap; it is about recognising the impact of lower levels of academic and social preparedness on students, and assisting their incremental movement towards independently achieving their educational goals. Indigenous transition extends beyond the usual first year programmes offered by universities. Shifting responsibilities or mainstreaming Indigenous support services is unlikely to close the educational gaps if there is not enough detailed understanding about what meeting that responsibility entails in practice. In this, we suspect that the IEU model in any university may be much less important in improving retention

and completions rates than the educational principles that underpin or frame the detail of student learning support practices, wherever that occurs within the university.

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