Chapter 13

Promoting Engagement and Success at University Through Strengthening the Online Learning Experiences of Indigenous Students Living and Studying in Remote Communities

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Introduction

This chapter has two goals. First, to provide a synthesised, well-informed, and nuanced understanding of the online learning experiences of Aboriginal university students living and studying in remote and very remote locations of Australia. Second, to identify culturally informed teaching and learning strategies to improve the learning experiences of these students for uptake in the higher education sector. To achieve these goals we draw together some related key findings from an Office for Learning and Teaching (OLT) funded project, '"Can't be what you can't see": The transition of Aboriginal and Torres Strait Islander students into higher education' (Kinnane et al. 2014),[1] with subsequent additional field research conducted in 2015 in the western Kimberley region of Western Australia, where experienced Indigenous and non-Indigenous educators from regional education networks were interviewed in regard to their views, expertise, and experiences in tertiary online learning forums.

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[1] Further funding was made available by the OLT for extension and dissemination activities to the *Can't be what you can't see* project, and this project, titled *Come be what you can see* was undertaken in 2014/2015.

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We are a collaboration of Indigenous and non-Indigenous researchers from regional universities, who have worked together since 2011 on a number of projects funded by the Australian Office for Teaching and Learning. Previously, in a nation-wide survey of 26 Australian universities (Kinnane et al. 2014), one of our key findings was that Indigenous students living in remote communities believed not enough was being done to engage them in online university studies. Our study found rural and remote students were geographically removed from most Australian university opportunities, and many experienced the impacts of lower socio-economic status on educational attainment. Very low numbers of rural and remote students transitioned to higher education, although higher proportions of rural and remote students accessed VET, with low transitions from VET to university. Blocked on-campus teaching is only financially viable in a small range of disciplines, mostly education, teaching, and community development. Further, limited equipment and Internet coverage hinder accessing external studies programs in rural and remote regions. Outreach to Indigenous students in rural and remote regions is costly and being cut back, not expanded, and students have fewer chances of experiencing university prior to attending (Kinnane et al. 2014, p. 105). It was these findings that prompted us to delve more deeply into the circumstances and experiences of these students and to initiate the research reported in this chapter.

In Australia, the National Census data is collected every five years in August of the allocated year. The results of census data collected in August 2016 are not likely to be released until June 2017. The most recent census data available for this chapter is information collected on August 9, 2011, released in June 2012.

The 2011 census reported that 21% of Indigenous peoples lived in remote (51,300) and very remote (91,600) Australia, compared with 1.7% of the non-Indigenous population (Australian Bureau of Statistics 2013a). In 2006, there were 1180 discrete Indigenous communities in Australia, and 1008 of these communities were in remote[2] areas; 767 of the very remote communities had population sizes of less than 50 (Calma 2009, p. 98) (Fig. 13.1).

It is vital that remote Indigenous learners are able to remain in the community to study when this is the only viable option for reasons of cost, community and family responsibilities, and for other reasons associated with not wanting to leave, including relocation trauma. There are some benefits of undertaking study away from home such as experiencing new cultures, travel, and increased tutoring support and time dedicated to studying alone. However, these benefits exist in tension with above-mentioned constraints for many students, and as with non-Indigenous students in rural or metropolitan settings (who increasingly choose external online study as an option), Indigenous students are keen to seek creative online solutions for their education needs. Diverse platforms of delivery offer the opportunity for students to make considered choices when deciding to undertake university studies,

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[2] For the purposes of this chapter, remote is identified as category three by the ABS, having an SA1 Average ARIA+ Value range of greater than 5.92 and less than or equal to 10.53. Very remote is identified as category four by the ABS, having a SA1 Average ARIA+ Value range of greater than 10.53 (Australian Bureau of Statistics 2013b).
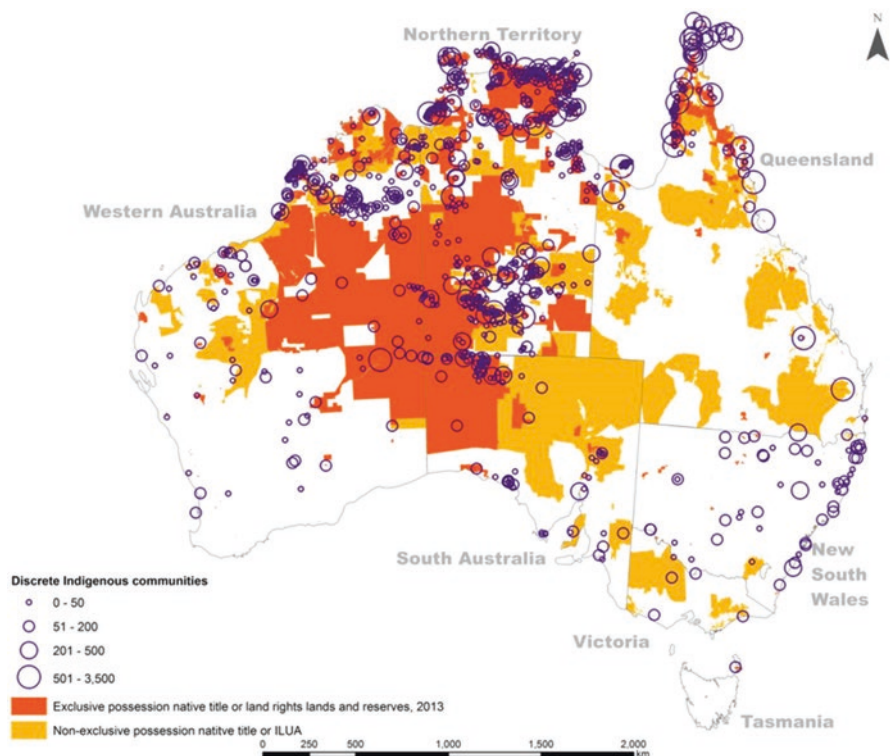
Fig. 13.1 Discrete Indigenous communities on Indigenous lands (Altman 2014)

even when living in locations of vast geographical distance from university campuses. Blended delivery models involving significant amounts of online elements are of particular benefit to those studying in remote regions, and for students with dependents or employment responsibilities.

This chapter argues, however, that despite the promise of being able to undertake university studies online, and the affordances of Information and Communication Technologies (ICT), there are many challenges – cultural, geographical, technological, personal, academic, language, literacy, computer literacy – for students in remote and very remote locations (Kinnane et al. 2014; Anthony and Keating 2013; Behrendt et al. 2012; Eady and Woodcock 2010; Kral 2010; Young et al. 2005; Zepke and Leach 2002).

Two years ago in our national study, 'Can't be what you can't see' (Kinnane et al. 2014) we investigated and documented 14 elements – enablers and constraint – experienced by Aboriginal and Torres Strait Islander students successfully transitioning into and benefitting from higher education. Element 7, *Blended delivery for remote student access* is the particular focus of this chapter, in which we build upon and extend the broad scale findings of our previous research with new research reported here. Following will be a synthesis and discussion of the challenges and of

desirable culturally informed practices to counter these challenges, in relation to the online/blended learning experiences of Aboriginal students living and studying in remote locations.
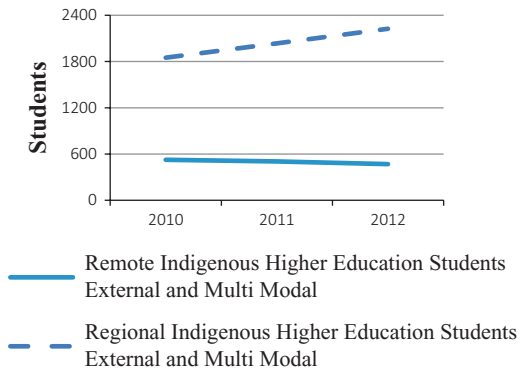
There is little doubt that online course delivery aligns with a particular and popular business model of universities, one that is promoted as meeting client needs but whose underlying goal is to maximise student numbers (Anthony and Keating 2013). Yet paradoxically, online learning may in fact be widening rather than narrowing the equity gap in education (ibid.) for Aboriginal students living and studying in remote locations. In this chapter, we make the case that students have many family and community demands on them which, in addition to persistent technical issues relating to access and participation, make it difficult to focus on their studies and increase their feelings of isolation in the self-regulating environment of online learning.

Background

The United Nations Educational, Scientific and Cultural Organization (UNESCO 2011) has expressed concern that Indigenous peoples have limited access to digital technologies, limited access and connectivity to Internet providers, and low ICT skills and literacy; all of which are exacerbated by living in a remote community.

Aboriginal and Torres Strait Islander people living in remote communities in Australia experience many barriers to participation in online learning environments. The most recent available data (Fig. 13.2 below) indicate higher education

Indigenous Undergraduate Higher Education Students Studying
Online Participation Numbers in Remote and Regional Locations
2010 -2012

Remote Indigenous Higher Education Students
External and Multi Modal

Regional Indigenous Higher Education Students
External and Multi Modal

Fig. 13.2 Remote and regional undergraduate Indigenous students with external mode and multi-mode of attendance (Source: Department of Industry 2014)

participation numbers of Indigenous students in remote areas, relative to regional areas, are low and declining.

The Review of Higher Education in Australia (Bradley et al. 2008) identified access and participation rates for students from remote locations as being of significant concern (regardless of study mode), with participation rates in higher education of less than 2%. When these factors are combined (that is, Indigenous *and* remote), the effect is a particularly marginalised group. A considerable body of insightful research is developing around the challenges and affordance of online study for Indigenous learners. However, it is questionable how many findings from this research have made their way into the design of university online teaching practices and curriculum.

Four years after the Bradley Review, Recommendation 15 of the *Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People: Final Report* (Behrendt et al. 2012) stated that universities must:

> Consider how to best support the needs of regional and remote Aboriginal and Torres Strait Islander students including through the use of virtual networks and other technology-based solutions to provide greater access to universities by remote and regional students (p. xxi).

Despite improved technologies for delivery in online learning environments (for example, described by Allen 2011; Christie 2010; Partridge et al. 2011; Sachs et al. 2011), a significant gap remains in collective knowledge across the sector about the specific experiences of students in online learning environments and about what works well and in what types of settings. This knowledge gap is amplified for students from geographically remote communities.

Commonly Identified Challenges

Geographical and Internet connection issues impact on students' ability to access quality technologies and reliable Internet connections. Few households in remote locations own computers or laptops, or have Internet connection. Additionally, even if the Internet and wireless access are available, they are often unreliable, slow and difficult to access. Access to technological resources in community telecentres (where they exist) can be difficult (Behrendt et al. 2012; Kinnane et al. 2014).

Software issues, particularly continual version upgrades of software packages and inconsistencies with computer interfaces, can disadvantage students in terms of mastering the technological skills needed to access online learning environments.

Design and delivery issues, identified as early as 1989 in the goals of the National Aboriginal and Torres Strait Islander Education Policy (Department of Employment Education and Training 1989) which stated that 'Aboriginal people have consistently called for greater Aboriginal influence in educational decision making, with a view to improving the accessibility, relevance, appropriateness, sensitivity, and effectiveness of educational services' (p. 9).

Methodology

The research discussed below consisted of two phases. Phase 1: A desk audit of research literature on the experiences of Indigenous university students (in Australia and overseas) who live in remote and very remote locations and are studying online. Phase 2: Employing a naturalistic inquiry methodological approach (Lincoln and Guba 1985) and applying purposive sampling methods, interviews were conducted with ten key educators in the West Kimberley region with experience teaching and supervising Aboriginal and Torres Strait Islander students undertaking university studies by way of distance education. Teachers in the VET sector in this region were also interviewed in view of the intertwined VET to university articulations and pathways programs and the nexus between the two sectors in this region. Respondents were identified through the relevant regional educators' networks. Interviewees comprised both Indigenous and non-Indigenous educators. Interviews consisted of nine open-ended questions (refer Appendix 1) and lasted approximately 50–60 min each.

Findings

Technical Access

Students' physical access to Information and Communications Technology (ICT) for online learning purposes is limited to their own personal and their community's capability to access services and their income level. Indigenous people are consistently identified as 'being on the wrong side of the divide' (Leung 2015), as recent statistics indicate. 'Indigenous Australians are among the lowest users of internet services and Indigenous people living in remote communities are the least likely to have used the internet' (Anthony and Keating 2013, p. 1). In the 2011 ABS census, 63% of Aboriginal and Torres Strait Islander households reported having an Internet connection compared with 77% of other households (Australian Bureau of Statistics 2012). In the 2008 National Aboriginal and Torres Strait Islander Social Survey, 20% of Aboriginal and Torres Strait Islander households in remote areas had a computer with Internet access at home compared with 53% in non-remote areas. High subscription cost was the main reason given for not having an Internet connection (Australian Bureau of Statistics 2011).[3]

These statistics reveal significant gaps in access and reliability of service for Indigenous students. However, care is needed in the application of statistics and how they are interpreted in cultural contexts (Drew et al. 2015). In the case of household technology access, Rennie et al. (2011) note: 'the term "household" may not mean much more than simply the physical space in the context of remote

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[3] At the time of writing, results of the 2015 NATSISS survey had not been released.

Indigenous communities. This has implications for how we understand home internet and the factors influencing take-up' (p. 54). Further, gaps and inconsistencies exist in the collecting and reporting of statistics because of changes in government structures and priorities. Some statistics relating to Indigenous remote and educational experiences included in this chapter appear to be no longer being updated.

Technical access to computers and the Internet, or lack thereof, explains many of the reasons underpinning the digital divide between remote Indigenous communities and non-Indigenous communities. Although technical access is a major and influential factor, other aspects including ICT skills, cultural factors, learning design, pedagogical approaches, and community arrangements play an influential role. Taking these social and cultural contexts into account highlights the unique circumstances and challenges facing Indigenous students, and the combined effects of all of these factors can be debilitating even for those familiar with online programs. One Kimberley respondent, a senior Indigenous educator who was studying for his MBA by distance education, described feeling 'cut off' from the course even though he worked in distance education and despite the fact he 'knew the drill' in online learning.

Two commonly cited technical challenges for students studying in geographically isolated rural and remote communities are slow or no Internet connection (due to the paucity of telecommunications infrastructure) and a lack of technology skills (Anthony and Keating 2013; Rao et al. 2011). The paucity of technical access is further compounded by the need for students to be able to afford and maintain and be willing to use a webcam and microphone in order to take part in online classes. Most students cannot afford such equipment, and many are not comfortable using them even if they possess one, for reasons associated with shyness, concerns about images going into digital space, and avoidance relationships in group situations (especially for older students).

Technical failure is an issue identified by respondents in this research; for example, not being able to get online to watch lectures and students who are reliant on recorded lectures missing important material and information. The recording (at the point where the lecture is being delivered) is set to cut out after 56 min. However, it is often after the first 56 min but within the allocated hour that the lecturer might talk about things of vital concern to students such as information relating to upcoming assignments.

Some remote communities have very good Broadband Internet access and others have good satellite access, but on the whole Internet access across remote Australia is variable in terms of bandwidth and reliability. The physical environment is 'harsh, making maintenance of the equipment difficult' (Daly 2007, p. 277). Further, 'the ratio for internet access at home is particularly low for Indigenous people in Western Australia and the NT (Northern Territory)' (Daly 2007, p. 274).

Community-Based Technical Facilities

We found broad agreement amongst respondents that community-based technical facilities have a vital role to play in assisting students with online access and with the technical skills-building components of effective engagement in distance education. Students need a quiet work area away from home, and facilities such as community resource centres (CRCs) have traditionally provided them with this opportunity.

All Australian state governments have had versions of programs promoting CRCs where facilities such as fax, telephones, computers, photocopiers, Internet, and videoconferencing are provided in small remote and rural towns. However, the funding for such resources is reliant on the whims of governments, and some facilities now charge fees for using a telecentre in an effort to make up for government funding shortfalls. Other resource hubs such as libraries, registered training organisations (RTOs) and not-for-profit centres have computers that students can potentially use, yet such entities are thinly scattered in remote areas and are subject to the ebb and flow of government funding.

Cultural or social barriers may occur in small communities where locally employed coordinators inhabit avoidance relationships with some students, or where families have historically not associated with each other. In this context, the laudable goal of a shared resource in the form of a CRC simply becomes a no-go zone for some students. There are innovative solutions to this, such as governance of telecentres including representatives of family groups, and further training for young people within the specific clan or extended family structures. The issue is not to over-complicate complex social structures but simply to work with them to ensure access and knowledge sharing through locally owned solutions.

Reflecting funding availability and the community's ability, individually and collectively, to pay for services (Papandrea 2010), the majority of CRCs are only open during business hours Monday to Friday, yet 'computer access off-campus appears to be one of the most prominent problems for implementing tertiary education online for Indigenous students … where students are able to access 24-hour student computer labs on-campus, participation rates are promising (Foster and Meehan 2007 in Dyson et al. 2007, p. 134). Reedy (2011) found that these facilities are 'generally locked up unless a lecturer was visiting the community' (p. 1067). They need to be located to encourage use and access, yet 'are often accompanied by lack of privacy and often uninviting ambience (for example, computer and screen places behind a protective screen and keyboard on a bench-top in the foyer of a Community Council office)' (Papandrea 2010, p. 13).

Mobile Phones

Many Aboriginal people residing in the Kimberley, especially the younger demographic, have mobile phones. Mobile phones are user-friendly and more intuitive than other digital technologies. However, mobile phone access relies on having coverage, a reliable battery and charger, and the money for credit; prepaid is overwhelmingly preferred to contracts (Rennie 2011).

Enhancing Indigenous remote online learning through increasing the blend of mobile technologies with online learning design can be a way of maximising students' abilities to engage with online courses and keep in step with evolving contemporary university delivery practices. There would be great utility in linking online delivery with the resources of local and regional Indigenous cultural media. It is noted that the NMC technology outlook for Australian tertiary education (Johnson et al. 2014) predicted, amongst other things, that mobile learning, use of open content, and hybrid learning environments are likely to become the norm in future.

Many communities do not have *any* mobile telephone service at all unless they are close to a main road, which are few in remote areas. In 2007 (latest available figures) 'only 26% of communities were within terrestrial mobile telephone coverage' (Papandrea 2010, p. 46). Communities also have satellite TV, a popular and potentially important communication tool for higher education. Communities may have a pay phone and the community office a landline but often only the one if the community is very remote. Statistics available at the time of writing indicated that 'only 57.7% of remote Indigenous communities had access to at least one standard telephone service … and only 52.5% had at least one payphone … 29% of communities had access to neither type of service' (Papandrea 2010, p. 46).

Facebook

A number of respondents commented on the potential of social networking tools such as Facebook as a useful communication tool to engage remote students, with the rider that it is not a teaching tool per se. It was agreed that perhaps its potential lies more in giving notices and announcements, and sharing resources between students.

Technical Skills and Knowledge

Uneven computer-related skills and knowledge are significant factors underlying the creation of the digital divide. One respondent working in an outreach capacity training teachers' aides, in a very remote area in the Kimberley, only has about an

hour a week face-to-face with her students and they are expected to do the rest of their studies online. This educator related the need for more in-community support for her students and observed that students require significant computer skills support, even basic skills: 'If I wasn't there, on site to help, these students would not do that course … and these students are at the higher end of literacy and numeracy.'

Mixed Platforms for Information Delivery

Many respondents were adamant that literacy support of various types is needed in addition to technical skills support to complement and strengthen students' engagement in online learning contexts. One respondent noted that in one learning context students use printed material and source books known as 'small print books' developed by her institution as an alternative to online resources to make it easier as this 'works better for them compared to having to access everything online or in e-format.' Others have found that the traditional online university learning management systems such as Blackboard and Moodle are not effective for all students, with one observing: 'A student writing it down in a book is stronger than those typing into bb [Blackboard online learning site] as their literacy is being enhanced through the former.'

Targeted Approaches to Enhancing Computer Use

Respondents related that their students don't like online learning management systems. As one put it: 'They want to be able to use a paper and a pen. *But* they need computer skills so they have to persevere. Most of my time with them is spent helping them with computer skills and also with literacy and numeracy skills.' One respondent in the Kimberley observed that at one community she frequents: 'Three languages in addition to English are spoken – so what language would you use if you wanted to put online learning modules together for these students?' Although students from remote areas are often not confident with online learning environments, it was also expressed that this improves greatly if delivery is complemented with on-campus workshops to introduce students to online learning.

Educators expect a lot of online learners in terms of confidence and competency in computer-related skills. Anthony and Keating (2013, p. 7) list some of these expectations which include being able to use web browsers and search engines; access online journal articles and e-books; manipulate graphics and photographs; write, communicate, access resources on the web; use spreadsheets, presentation software, email, word processing; take part and present in online forums; undertake group work online; and videoconference. But the reality is that often even the basic things required to get them started such as access, physically and financially, to the

Internet and to the necessary software and hardware in the community remain a persistent challenge.

Enhanced Onsite Training to Enhance Specific Regional Indigenous Learning Styles

As previously stressed, for students access to on-site in-community technological support and training is vital. Respondents in the Kimberley shared a range of teaching strategies associated with the students' computer use that improves success and engagement. They were adamant it is essential that the lecturer gets back to students quickly and that online activities are designed to be interactive. Mentors are important and the Indigenous Tutorial Assistance Scheme (ITAS) tutors have an important role to play here, for reasons that will be elaborated on later in this chapter. It is a case of many things working together: being open and communicative is very important; building study capacity; and while still in school, exposure to university study and knowing what it entails. The university year's introductory week is important in bringing students onto campuses wherever possible to learn study skills, form study buddy and online learning groups, and make sure students studying online fully understand and get to *see* what support is available.

One educator in the Kimberley was especially passionate about students needing to be *shown* the pathways into tertiary education and the 'baby steps' to get to these pathways. Retention is his teaching team's primary goal: 'There is a lot of pressure on everyone about this.' He has established programs whereby teaching staff work with students, one on one, to develop individual learning plans around their academic and other needs.

Students' Roles in Family and Community

As one Indigenous Kimberley educator put it, 'The ideology of community is the opposite of the individualistic nature of online study.' Online study can be seen as having the potential to take students away from their responsibilities to family and community. Respondents stressed that mature age students especially have family pressures such as supporting other family members and children, and finances, and many are likely to be leaders within their communities and therefore hold significant responsibilities. Jobs come up, and due to family financial pressures, it is hard for students not to take those jobs, even if only for a while. Reflecting these realities, Indigenous students tend to take longer to complete their degree as they cannot turn jobs down nor ignore family and community responsibilities. Students are then confronted by an accumulating debt on an unfinished degree for units completed, or units discontinued after the official census date.

Crises in families and the poverty in communities, and ill-health and deaths in extended families, can also result in students 'getting sucked out of university' and never finishing. Respondents identified the isolating effects of online learning, observing that 'when Aboriginal people study it takes them away from community and family time, even if they are just in another room.' This causes stress for them; they want to do both but they are very torn. Also, even with the best will in the world to commit to study, often just finding a quiet place within the home to study can be a challenge.

Respondents related that the online courses in which they teach have a high drop-out rate due to a myriad of 'push and pull' stresses on the students. They shared that issues in the community– ill-health, carer responsibilities, suicides, and funerals – can make life very challenging for their students: 'There's always something going on, it's very distracting for their focus on work or study.'

One Kimberley educator found that families can put a lot of pressure on women to be with their partners and not away somewhere working on a computer: 'When they're in class they're getting constant text messages from their partners and kids … they don't understand that this is a white fella structure … that (the women) need time away from family to do the study.' She reflected that as lecturers 'we can get annoyed' because students are often late, but there are often many reasons to do with family and community as to why they're late. These students, just like students elsewhere, mostly work and find it hard to get time away from work: 'They could not go into x for blocks; they wouldn't be able to get the time away.'

One respondent had taught a student who had received an offer for a university place on the other side of Australia but didn't want to go away from home, her family, her country. Her mother did not want her to go away either: 'University is a foreign land … studying in cities is the going away.' Some Elders cited the danger of city life as a key reason they preferred children and grandchildren to stay at home and not undertake study. The students' different roles in family and community and as 'a student' constantly impact on each other.

However, online study isn't a solution to these dilemmas and pressures because online is difficult too, although for different reasons. Students are caught between the two, neither are optimal, and both are *really* hard; and as Reedy's research (2011) found: '… where a student's identity as a learner is not strong, and where that identity is in conflict with the values of their family, peer group and community, the student is less likely to persevere with education' (p. 1069). Promoting increased community awareness of the benefits of higher education, showcasing the successes and positives that it can bring to a community, identifying leaders with the desire to complete further studies, and explaining the roles and requirements of being a student are activities that can assist to demystify university study and why it is of value to communities.

Another Kimberley educator, both a teacher and postgraduate student, reflected that as an active community member with many responsibilities he sometimes feels too thinly spread, having to be 'everything to everyone … it's important to grow the young up to be culturally strong, but they need to work/study/face community

responsibilities as well. It's so important that young people set their goals and keep trying to achieve them despite setbacks and pressures on them.'

Outreach and In-Community Support

As with most teaching and learning, relationships are extremely important in online learning contexts, as one respondent commented: 'It's always better to go out to teach the students in the community in very remote locations, that way you can bring the community into your teaching.' Many respondents teaching in the community have found success in bringing community members into classes; for example, asking Elders to be present. Elders can identify training needs and appreciate and want to be involved in the design of on-site delivery.

Respondents in the Kimberley articulated strong support for an outreach style of teaching delivery and in-community support for students studying online in remote locations but like all factors, there are positives and negatives associated with these elements. One respondent related:

> … some of the courses I teach in have more of an outreach model rather than blocks, lecturers go out to the sites, but for blocks at various sites we do have self-contained accommodation for husbands/wives and kids to come as well as part of the students' journey. But blocks are draining on families and the women miss their children, husbands get jealous. Large complex units however need to be blocked – it helps the students to unpack the content.

Funding is vital for longer-term outreach activities such as dedicated programs building relationships and linking universities with students and communities, particularly in remote and very remote regions. Outreach activities, however, are expensive and many institutions are reducing or withdrawing their outreach programs. In the words of one respondent: 'The Kimberley is so vast. We used to send out mentors to visit students in community in the program to help the students with technical problems and with literacy and numeracy.' One solution might be that where universities are geographically remote from enrolled students (for example, in another state or territory) they could explore the possibility of building relationships, centred around student support, with institutions that are closer.

It was stressed that the students need a lot more time with their lecturers than they are getting. In nearly all cases lectures are video conferenced from the metropolitan campuses, with most lecturers rarely visiting. One respondent noted: 'FIFO [Fly In Fly Out] lecturers are not ideal. FIFOs are not as invested into the community … don't understand the nuances. We need our facilities to be set up as a training centre with human support for computers and assignments.'

There is an important value in outreach and *in*-community support for remote students, and also *of* the community's support for their programs. Communities can offer education providers practical assistance, ensuring that outreach programs run smoothly and effectively; for example, providing accommodation for visiting teachers, organising teaching spaces, sourcing additional computers, and providing

informal moral support for the students and their families (York and Henderson 2003). One such program of note resides at the University of Newcastle where academics travel to western New South Wales with staff from the community engagement portfolio of the Wollotuka Institute; they take out information to communities and bring information back to researchers about communities' aspirations, needs, and interests. Effective information flows are created, researchers' activities are matched with the communities' needs, and channels are created for the sharing of research findings.

The Role of ITAS

Another potential element of in-community support is ITAS. This program was an initiative of the Australian Government. It was introduced in 1989 as the Aboriginal Tutorial Assistance Scheme (ATAS), reviewed in 2003 and renamed the Indigenous Tutorial Assistance Scheme Tertiary Tuition (ITAS -TT) in 2005. Since its inception, it has been a central plank supporting Indigenous university students in their studies. ITAS is widely recognised as a key enabler of students and as a reliable and central means of engaging students successfully. Yet despite its huge value to students, ITAS is far less available for students in remote and regional locations. The limited availability of ITAS tutoring to students residing in remote areas puts these students at a disadvantage and it is, therefore, tempting to envisage that schemes such as ITAS tutoring or peer mentoring might accordingly move more into online mode. However, the tutors and students interviewed in a recent study (Wilks et al. 2017) stressed that a key strength of ITAS is that most tutoring is done face to face. As one respondent in her survey observed: 'It's a cultural thing, a human thing'; and another: 'Relationships are so important; we need to get people who work effectively with Indigenous students.'

Pedagogy, Curriculum and Teaching and Learning Design

Importance of Blocks/Residential Programs

Mixed mode Away from Base (AFB) for higher education institutes has been utilised as a mixed-mode delivery tertiary study program for Indigenous students in remote and rural areas. Mixed-mode courses have combined online education in local communities with some face-to-face teaching at 'blocks' held on campus. The Australian Government has provided funding for travel, meals, and accommodation for eligible Indigenous students in the higher education sector in approved programs where students are away from home (Department of Education Employment and Workplace Relations 2011a, b).

Respondents in the Kimberley emphasised that workshops conducted during blocks in mixed-mode/blended delivery contexts facilitate learning, small group collaboration, and the setting up of peer support mechanisms. They expressed that face-to-face workshops should be the foundations of the course, conducted as early as possible in the semester, perhaps as part of the Orientation week: 'It's about developing relationships; the setting up of learning groups at the blocks – these groups can support students for the duration of the semester.'

A firm belief was expressed in the value of block release to supplement the students' online learning and as a suitable model for Aboriginal students in remote locations. Most respondents felt that attendance at the blocks should be mandatory: 'Attendance at blocks needs to be linked to accreditation and then no excuses not to come.' Another respondent offered:

> If I had all the money in the world? I would fund the introductory session (block) for everyone for the start of the session; cover travel and accommodation costs. Put as much money as possible into the block … but of course, it's more than about money.

Another:

> Some say that Intensives don't work because people don't return, but Intensives are an absolute incentive, it's interesting to see students interacting for example, traditional with not so traditional Aboriginal students, they learn from each other. You can talk online, but physical face to face early on in their course is so important. Lecturers should also travel to Communities to introduce themselves.

One respondent gave a distinctive example of how Indigenous and non-Indigenous students can learn from each other during blocks:

> We asked Aboriginal Tourism students how they would handle a tour group if there was a fire. They said their No. 1 priority would be to warn people about all the snakes coming out of the fire, whereas non-Indigenous students had a preoccupation with hard hats, wardens, assembly points, etc. In two-way learning we learn so much from their local knowledge. They can teach tourists so much more than non-Indigenous tourist guides in regions like the Kimberley.

One remote settlement provides accommodation for students for use during the blocks, but respondents indicated they're not being used:

> We're trying to find out why. It's perhaps because bringing students into town is difficult – there are temptations and distractions – the pub, disputes arise, there is family to visit. The rules about the dongas [accommodation] are very strict, they must only be occupied by students, but the blocks are draining on families, and the women miss their children, husbands get jealous … and the students want family and friends to come there too.

Travel and Accommodation Issues

Block accommodation at some sites have self-contained accommodation for husbands/wives and children to come as well and to be part of the students' journey. Educators in the Kimberley recognised that although individual learning times at

blocks are important, the blocks are a great opportunity for collaborative, group-based assessments. It is important to assess the extent of students' learning before they go back to their communities, and it is confidence-building for students to leave the blocks having already done and passed part of their assessment.

Many students are away from country when they come onto the campuses for their blocks and a Welcome to Country is helpful. As one respondent said: 'When we bring Aboriginal people onto campus they need to feel safe and comfortable.' Once she noticed that the students from a certain community were ill at ease on campus; it had something to do with a particular bird and was unsettling the students. On another occasion the students from one location were not comfortable with the wind at night: 'they have dogs on their own country to bark and protect them against the night winds.'

Learning Styles

The Western tradition of 'posing and answering questions' is a mode of questioning that can cause discomfort and embarrassment for some Aboriginal and Torres Strait Islanders (York and Henderson 2003, p. 80). One respondent related:

> You can't ask direct questions in teaching Aboriginal students, make a comment, and they will come back to you. Let them be the teachers. The humour is important. They are reserved (at first!). You have to make a connection with them. Be yourself. Find a way to connect. Connectivity is so strong – in every way.

Respondents related that in face-to-face teaching contexts teachers need to be cognisant of cultural factors. One educator observed: 'Students will just close their books and walk out if something is said, the nod of a head, or the presence of a person with a particular relational link or characteristic.' Non-Indigenous teachers need to be aware of these sorts of factors, and they have the potential to impact on online teaching settings as well; for example, in Collaborate (online) tutorials.

Online Pedagogy

Investment is needed in targeted study support programs for students that work to their strengths and build confidence in obtaining Western skills relevant for higher education. However, in thinking about the design of contemporary online higher education pedagogy, Anthony and Keating (2013) purport it to be mostly lacking in 'culturally appropriate learning mechanisms which have been a proven factor in the success of adult learning', and as largely reflecting Western values and pedagogic traditions (p. 6). One example these authors give (referencing Taylor 2012) is a unit of work objectives, the majority of which are based on personal success and status in mainstream terms. Reframing and reviewing these objectives through a

community or collective lens could assist their design to resonate more strongly with Indigenous students. University educators developing curriculum must possess cultural knowledge and capacities, and the delivery must be flexible enough to support remote learners (McMullen and Rohrbach 2003).

Rao et al. (2011) identified one of the main challenges in online pedagogy in the context of Indigenous learners as 'achieving empowerment in ways that consider their worldviews, cultural knowledge, and traditional community-based lifestyles' (p. 4). Some elements of online course design they suggest may help to achieve this include virtual meetings for cross-cultural exchanges, creation of online learning communities, 'visual instruction' – use of multimedia to clarify complex topics and promote visual exploration, and going beyond reliance on text-based materials – many have strong oral traditions that rely on verbal exchanges for communication whereas writing/reading can be discouraging.

McMullen and Rohrbach (2003, p. 109) use the term 'Aboriginal learning values' to describe learning based around storytelling, relationships and experiential activities and not so much text-based media. If opportunities for experiential learning and relationship building are incorporated into the course design and delivery practices, engagement with learning is more likely to occur. Essentially, it is about recognising 'the positive influence of culture' (p. 69), the qualities of culture, and ensuring that curriculum incorporates the knowledge and involvement of Elders, embraces relationship building, and 'respects the traditions and beliefs of Aboriginal students' (p. 110).

One Kimberley respondent stated: 'Aboriginal people are visual people, highly visual. You need to watch the signals from them - emotional intelligence.' Likewise, body language, absent in online learning fora, plays an important role in cultural and intercultural contexts (York and Henderson 2003), and online teaching staff would benefit from training in the application of culturally appropriate ways of utilising virtual teaching spaces to develop students' online collaborative skills. One strategy might be to provide students with a biography of the person teaching them to help overcome apprehensiveness around the lack of physical contact with teaching staff (McMullen and Rohrbach 2003).

Another relevant strategy comprises the embedding of Indigenous art, images, and symbols in the design of online content (Calma 2009). While always essential to put a rider on generalisations about how any one group of people might learn best, the reflections of Indigenous educators in the Kimberley study around learning styles reported in this chapter resonate with previous studies (for example, Kawalilak et al. 2012; McMullen and Rohrbach 2003). Emotion and feelings of connection, anecdotes, storytelling, and narratives, for example, play a critical role in the learning processes of Indigenous adults, signaling the need to create supportive learning environments; a challenge when learning is taking place online. There are other characteristic strengths of Aboriginal ways of learning – likewise not realised in online learning – such as observation; listening; imitation; context, spontaneity; imagery; and visual spatial acuity (Hughes and Moore 1997).

Timely and Meaningful Feedback

Another essential principle is prompt and meaningful feedback around assessment items; an elementary, effective teaching practice in any educational setting. Respondents stressed how important it is to mark students' work straight away and to provide lots of feedback: 'It's important to do this and to encourage them as much as possible.' Philpott et al. (2009) also promote the strategy of self-assessment by university teaching staff, the need for educators to reflect on which units of work students are having most/least success in, and thereby identifying and communicating 'student attributes for success in web courses' (p.13).

Across the sector many Indigenous students do not receive targeted support with assessments despite the presence of ITAS on campuses, nor is there awareness of their needs early in their course. Consequently, students are placed on the back foot from the beginning. Alert systems to trigger support vary. Some provide individualised learning support from enrolment, while others trigger communication to support services when a student does not respond or fails to submit work, or post-failure when debts are incurred. However, in online learning contexts, many supports lose their focus and potency, and the potential for students to lose touch is far greater.

Finding out about students' personal histories as learners and knowing their linguistic strengths is an important ingredient of online learning design to promote success (Kawalilak et al. 2012), yet the reality remains that:

> For the most part, our education system does not reflect Indigenous culture, its values and knowledge systems predominantly reinforce western cultural perspectives and western methods of learning … (yet) when students are able to make associations between the information they receive at school and at home they are able to integrate and scaffold new learning (Calma 2009, p. 121)

As one Kimberley respondent commented, ultimately successful teaching in any context is achieved through relationship building. All students learn better when relationships are forged and relational values are part of course design.

Conclusion

This chapter has identified a combination of elements with the potential to build capacity and connectivity in the online learning experiences for Aboriginal students living in remote locations. These relate variously to strengthening their participation through culturally respectful pedagogies, through teaching and learning design, through connecting with communities, and via technical access including ICT skills. Above all, university educators need to develop culturally informed principles around their practice and the related practical strategies to enact them, to underpin the development of a framework in higher education involving these elements. This includes fostering ways of learning in the community that seek to engage

students, Elders, community support workers, and related community resources in valuing and supporting Indigenous students.

In higher education 'successful outcomes' are generally evaluated in terms of incremental stages of progression of units passed until a qualification is achieved. Yet for these students and their communities, success in education constitutes more than achieving a score within a unit of a program of study. Success is encouraged when it is recognised that learning is not an individual activity; that in traditional communities, information is shared and negotiated with others and passed down from Elders; that traditional learning is important learning; and that many Indigenous learners prefer to work collaboratively, valuing community and kinship, and eschewing individual isolation (Calma 2009; Rao et al. 2011; Stoessel et al. 2015).

Education is relational, and having a sound education is a key enabling element in our lives. However, online learning in cross-cultural contexts is not a straightforward distance delivery matter. Challenges students encounter while studying from remote and very remote communities are frequently compounded by cultural, community and family responsibilities, and dynamic household arrangements and high levels of mobility. Students in remote locations have reported feeling doubly isolated when undertaking their university studies due to peer pressures and a lack of understanding within their home community where a 'cultural stigma' may be attached to higher education (Willems 2012). In an Indigenous community context, achieving individual 'success' at study not only relies on individual talent and hard work but also reflects Indigenous enablers and constraints that the remote community setting constitutes. In this sense, the importance of community as a factor in the relationships built around students' learning experiences cannot be underestimated.

Connecting with community enables a contextually situated and culturally responsive approach to education that fosters respect for, and the inclusion of, Indigenous knowledges. Further, it ensures the communities' and individual students' connectivity and relational needs are met, and support networks for students are strengthened, so as to ensure that students learn and can retain and own the education being undertaken in order to apply those skills for their personal and community benefit. In view of this, we must strive to build stronger partnerships between higher education institutions and students' communities when seeking solutions to best support their learning and engagement needs.

Education is a continuum from childhood into adulthood and incorporates many facets of community and culture. Indigenous communities benefit most from education when they are in a position to drive it, to enhance its links with other elements such as health and employment, and to be part of bringing together partners from government and other sectors (Calma 2009). As McMullen and Rohrbach (2003) reflected, rather than saying that our students are failing distance education courses, perhaps we should be putting greater energy into finding out about and addressing the ways in which the higher education sector may be failing them.

Appendix

Interview Questions

1. In your experience, which factors assist students to engage with their studies in online learning contexts?
2. In your experience, which factors mitigate against students' engagement with their studies in online learning contexts?
3. What role do you believe community plays in successful engagement for these students in their university studies in online learning contexts?
4. Can you describe any cultural sensitivities for these students that relate to their participation in online learning environments?
5. Which tools, e.g. phones; internet; apps; mobile devices; multi-platform networking etc., do you believe are the most useful and appropriate for these students?
6. Can you describe any in-situ educational and community support services that you believe would enhance these students' engagement with their online studies?
7. Which teaching and learning practices relating to educational design and delivery in online learning environments do you believe are the most useful and appropriate for these students?
8. If you had the money and the resources to innovate one thing in online learning for the benefit of these students, what would it be?
9. Is there anything else you would like to add?

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