Demystifying multidisciplinary public health practice in rural, remote, and Indigenous Australian communities through intentional curriculum design

OVERVIEW AND CONTEXT

Over 7 million Australians live in rural, remote, and regional Australia and their health status is the poorest in the nation[1]. In Australia, the need to provide quality health care to under-served populations is essential, yet inadequate distribution of health professionals impacts the ability of rural and remote communities to access the care they need. Practitioners in this space require a more in-depth and nuanced understanding of the broader context in which they practice, engaging with the socio-cultural milieu of rural, remote, and Indigenous Australian communities to identify key determinants and deliver culturally competent, public health-informed, interdisciplinary practice. James Cook University's mission is to provide a workforce capable of meeting these requirements, and I am passionate about working with undergraduate allied health students, and postgraduate medical and health practitioners to prepare for these futures.

I come from a regional community and have spent seventeen years living and working as a researcher in a rural health context. Upon completion of my Honours degree in anthropology at James Cook University (JCU), I headed to Mount Isa in north-west Queensland to work for JCU's Centre for Rural and Remote Health, where I really got the chance to dig deep into the lived experiences of communities in the outback. The valuable insights I gained through time spent with hundreds of diverse emerging health professionals who undertook placement through the Centre from 2005-2014 inspired me to explore student learning in this rich experiential environment. Many students experienced culture shock or difficulties fitting in, due in large part to their lack of prior insight into the realities of remote living and the history of how these remote communities formed[2]. The realisation that the value of creating safe spaces for students to learn through rural and remote placement was only as good as the preparation that students receive prior to placement inspires my current teaching of Undergraduate and Postgraduate Health Students at JCU.

My core contributions (2016-2022) to the rural health education space are in the undergraduate subject *Rural and Remote Primary and Public Health Care,* and the postgraduate subject *Aboriginal and Torres Strait Islander Health*. Across the five-year period 2018-2022, I have taught over 1000 students; the student demographics reflect a broad range of backgrounds and disciplines (described below) and include an average of 2.97% Indigenous students and 6.8% international students. Approximately 37% of the students that I teach are from metropolitan areas and some are quite intimidated when considering rural and remote health care practice due to having little prior knowledge or experience of rural, remote, or Indigenous communities. By designing these subjects to demystify core concepts students feel more at ease with the idea of rural and remote practice, giving them useful knowledge, skills and tools to draw upon as they enter and mature in their rural health journeys. And the success is clear: student success rates (2017-2021 Undergraduate 98.42%, Postgraduate 97.38%) and pass rates across the two cohort groups are high (2019-2021 Undergraduate – 97.2% Postgraduate 92.9%).

SC2: DEVELOPMENT OF CURRICULA, RESOURCES OR SERVICES THAT REFLECT A COMMAND OF THE FIELD

My anthropological training is fundamental to my approach to teaching and learning and has empowered and inspired the creation of an innovative narrative underpinning a carefully curated set of subjects that challenge students to think deeply about practice in rural, remote, and Indigenous communities. The narrative is constructed through three lenses: the individual, the social and the political, and privileges both Indigenous and non-Indigenous ways of knowing to demonstrate to my students the power of diverse knowledge systems[3,4,5]. My approach to teaching provides students with critical, transformed conceptions of rural, remote, and Indigenous community environments and a 'toolkit' to continue to acquaint them with these communities well beyond their studies. No longer do these subjects have assessments that stand as disconnected pieces; rather all information and assessment is aligned to create a more authentic experience of working to understand a community through solid research and engagement skills. Students have a safe space in which they can explore and formulate their unique place and contribution in the rural, remote, and Indigenous health sectors, combining safe preparation for practice alongside expert advice and guidance, before they apply the skills to a real-world community context. My belief in providing an authentic learning experience contextualised by contemporary research and service delivery models aligns with the intent of providing a teaching environment grounded in real-world examples.

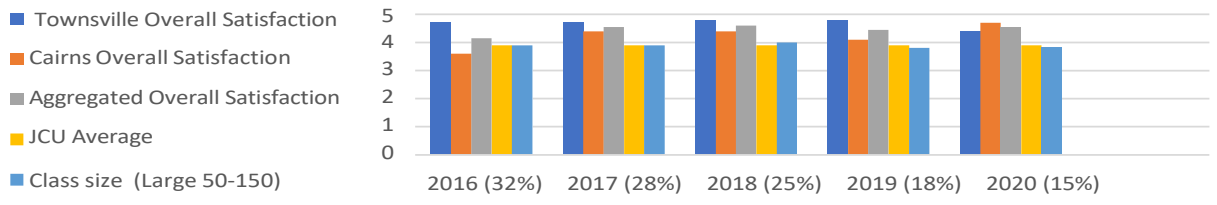
UNDERGRADUATE STUDENT EXPERIENCE: *Rural and Remote Primary and Public Health Care* is a core subject

in the undergraduate degrees of dentistry, occupational therapy, and speech pathology (and pharmacy until 2021). The subject structure is built on introducing the rural health context and population and creating a relational space for students who may be unfamiliar with such environments. A Scenario-based Learning core structure unpacks the complexities of rural health policies, models of care, interdisciplinary and expanded practice, culturally safe care, community trauma, and practitioner self-care skills. By describing and exploring these materials deeply students unpack unfamiliar situations, scaffolding their way through information and competencies that are often seen as intangible: the skills needed to navigate complex systems of care with patients, and to care for oneself in resource-limited environments. I have carefully curated learning artefacts[6], including videos, live lectures and interviews with community members and professionals, podcasts, and readings, based in my anthropological knowledge and lived experiences, to afford choices in student engagement with enhancement materials that provide depth to these core elements. These choices construct a cohesive narrative in a 'choose your own adventure'[4,6] approach throughout the subject, demystifying the twists and turns of rural health issues. Critically, this approach also positions the educator as a learning artefact: all staff teaching and marking into the subject have industry expertise, including rural health nurses, rural addictions specialists, speech pathologists, community engagement professionals, and rural health researchers, who share their personal reflections and experiences of rural, remote, and Indigenous community life, bringing authenticity to learning environments and assessments.

I have scaffolded assessment that begins with a desktop audit of a remote community, followed by the development of a community engagement plan based on community needs and characteristics. The assessments build on each other, allowing students to master basic research and understanding of community complexity, providing them with a toolkit of skills that can contribute to increased confidence and reduced culture shock upon entry to a remote community. This is rounded out with a scenario-based examination that gives students the opportunity to apply all that they have learned to a set of rural health scenarios that include consideration of complex cases to be managed in interdisciplinary teams, design of health care services for a mock community, refugee health, Aboriginal and Torres Strait Islander health, the importance of trauma-informed services for rural communities, and practitioner self-care situated in the information they gathered in the earlier assessments, effectively demonstrating how they will look after themselves while working in their community. All scenarios use real-life examples and situations, which inspires confidence to practice in these remote locations, as evidenced by student feedback on my teaching: *"I was extremely pleased to find how willing Dr Kris was to engage in discussions at an individual level. Despite my presumptions that this would be a course with little to take away…I have learned a lot through well thought-out assignment topics and with embedded scope to allow students to choose locations/topics they have a particular passion for"* (Formal Student Feedback 2019).

Figure 1 outlines the high level of satisfaction experienced by my undergraduate students.

Figure 1: Rural and Remote Primary and Public Health Care Townville and Cairns offerings: scores, aggregated response rates and total enrolments for Subject Overall Satisfaction v. JCU and class size average



POSTGRADUATE STUDENT EXPERIENCE: A framework of blended learning[4] grounds the approach to content and assessment design in the postgraduate space. *Aboriginal and Torres Strait Islander Health* is an elective in the Master of Public Health/Master of Public Health and Tropical Medicine and is core to the Master of Remote Medicine. Many of the students in this subject are practising health professionals, including general practitioners, nurses, environmental health officers, biomedical scientists and more, and yet they have found my approach invaluable: *"When I started [Aboriginal and Torres Strait Islander Health] I anticipated that the biomedical model of health would be challenged and expanded, and I had some idea of the ways in which that would be challenged, particularly from my time working in [remote town] Emergency Department. However, I found the way you structured the course completely upturned my expectations in a way that I initially found quite challenging, but that ended up taking me on a journey that I found fundamentally shifted how I think*

about Aboriginal health" (Unsolicited student feedback email, 2021). The subject was co-designed with Indigenous Australian colleagues and community members that I have worked with during my career and centre their voices and experiences as lecturers in the subject. I am a non-Indigenous person, who is committed to ensuring that Indigenous content in curricula is meaningful, appropriately developed and appropriately resourced[7] *"I have always been impressed by your motivation and commitment to seek the voices of Aboriginal and Torres Strait people in the subject delivery and content…your subject has created opportunities for participants to yarn with those of us working in the Aboriginal and Torres Strait Islander Health space. An essential learning experience that supports real world health promoting action"* (Shaun Solomon, Lecturer and Head of Indigenous Education CRRH, solicited feedback 2022).

This is a critical element in the design of the subject, as it unapologetically enables students to access and interact with Indigenous knowledge on an equal footing to public health data[7]. Students navigate a narrative steeped in Indigenous voices, framed by the very policies that impact on Aboriginal and Torres Strait Islander lived experiences. By unpacking Indigenous health policy, students can truly situate themselves—in history, in their disciplinary contribution, and in their personal practice. Students' understandings are critically challenged through the exposure to Indigenous and anthropological voices[5,7]. Whether these are students who are novice to the Indigenous health space, or highly skilled in the discipline, the cultural interface and anthropological exploration of public health challenges, framed through Indigenous health policy, allows students to situate themselves in a sociocultural world that can sometimes feel overwhelmingly challenging: *"I was expecting to enjoy this subject but I LOVED it! And it may have changed the course of my career. I felt like something about the course structure actually shifted my thinking about this area in a profound way – almost that the course structure and content actually moved me into an experience of Aboriginal Health"* (Formal Student Feedback 2021). The subject includes an on-campus block (not offered in 2020/21 due to COVID-19), that affords students the chance to discuss content in deeper ways with community experts drawn from Townsville and Mount Isa Aboriginal and Torres Strait Islander communities. These lecturers add authenticity to the existing resources and expand the conversations being developed throughout the modules. The first assessment is an examination of community-level data (which highlights the challenges of data sovereignty faced by many remote Indigenous communities) and the development of culturally appropriate community engagement plans, to ensure that communities are not just consulted, but lead decision-making on the design of community health solutions. The penultimate assessment for the subject is a comprehensive health program plan that highlights the strengths and aspirations of communities to enhance health status through paying close attention to the social and cultural determinants of health and by leaning heavily on health policies to advocate with and for communities. Culturally situated learning acknowledges that no student is a blank slate (especially true of the postgraduate cohort), and that we must acknowledge and build new learning within the context of *a priori* social knowledge, which in turn creates a rich space for discussion and thinking, particularly among heterogeneous groups of students, and encourages socially active learning to engage students. The combination of anthropological and public health approaches to exploring health care brings the 'human' back into sharp focus, showing students

Figure 2: Formal Student feedback Teaching Report: "The teaching style of this staff member inspired me to learn" scores and response rates (%) per year.

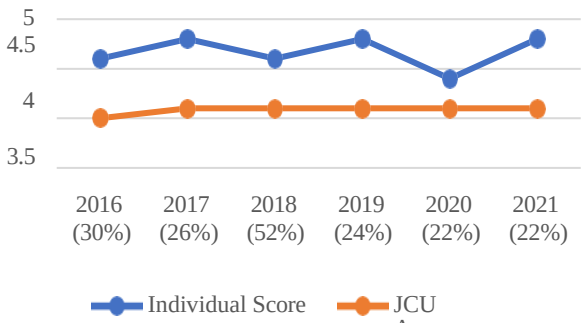
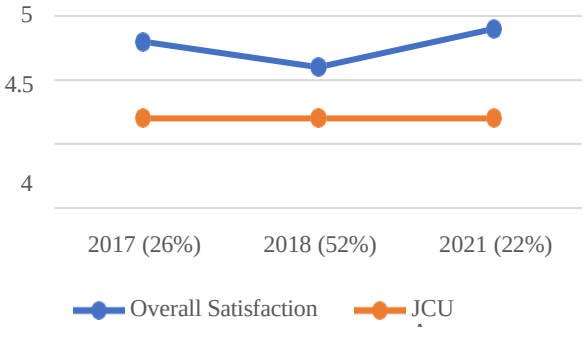


Figure 3: Formal Student feedback Aboriginal and Torres Strait Islander health scores and response rates for Teaching Overall Satisfaction v. JCU Average*
*unavailable 2019 and 2020



different ways to understand the world through individual, social and political lenses, to create more meaningful health care encounters, which bear witness to the lived experiences of their patients, and their communities. The success of this approach is demonstrated by this student reflection: *"Thank you for delivering an excellent module on Aboriginal and Torres Strait Islander Health. Your delivery methods were quite fresh and engaging, with a very clear educational scaffolding. I truly believe that this has been the best module I have done at JCU, by far. Your availability and your kind constructive feedback has been very valuable"* (Unsolicited student feedback email, 2021). The success of my teaching approach and the satisfaction experienced by my postgraduate students is reflected in figures 2 and 3.

RECOGNITION: Both my undergraduate and post-graduate subjects have been peer-reviewed within JCU with the structure and scaffolding of my subjects is extremely well regarded by my peers. For example: *"In my view, students are being actively encouraged and guided to link their assessment work, back to key learning outcomes that consider the interaction between historical, and current political, cultural and social determinants and think critically about the sufficiency of current approaches, and possibilities for improvement"* (A/Prof Stephanie Topp, Aboriginal Health Researcher, 2021 *Aboriginal and Torres Strait Islander Health* PRoT). Results of peer review align with reported student experiences of the material in *Rural and Remote Primary and Public Health Care*: *"[this subject] integrates contemporary interdisciplinary pedagogy that is effectively transferable across delivery modes and schedules. The modules and case study scenarios are grounded in evidence-bases. Furthermore, the use of project-based learning and a scenario-based exam means that the assessments are highly authentic and meaningful for students from a range of disciplines"* (Dr Rhian Morgan, 2021 Learning designer and Acting Principal, JCU DipHigherEd program, *Rural and Remote Primary and Public Health Care* PRoT). This is mirrored in feedback from colleagues in Dentistry: *"Further, she has skillfully adapted the teaching and subject delivery to meet the learning needs of the large BDS cohort, which is comprised of young, culturally diverse students, most of whom are from metropolitan areas with limited understanding rural, remote, or Indigenous Australian contexts. Dr McBain-Rigg's depth of knowledge and enthusiasm for the subject content, inspires and motivates these students to actively engage in learning while fostering positive attitudes towards rural practice"* (A/Prof Felicity Croker, Dentistry Lecturer, 2021, solicited feedback). In 2020, I was awarded the JCU **College of Public Health, Medical and Veterinary Sciences Teaching Excellence Award** for my teaching performance in SP2 of 2019. In 2021, I was awarded a **James Cook University Citation for Outstanding Contributions to Student Learning.** *Rural and Remote Primary and Public Health Care* has recently been purchased as part of the JCU Occupational Therapy suite for implementation at Federation University. The subject was delivered at Federation University for the first time in 2021, so evaluation data is limited; however, the staff experience of implementing the subject, and adapting it for the local context has been positive. As practicing occupational therapists, they have been able to teach and adapt the subject to the local context in Victoria: *"I unpack each week…and put in the Victoria [content]… and am expanding the workshops this year* (Sara Brito, Federation University, 2022). This shows the potential of the subject to be adaptable and flexible to incorporate the differences in health care throughout Australia, whilst remaining true to the core intent and content flow.

SUMMARY: By applying a transformational[3] blended learning approach[4] to subject content and assessment design, I have streamlined the processing of critical concepts and skills for students at both undergraduate and postgraduate levels. This approach ensures that students access core materials 'on-demand' and provides flexibility of delivery through modular design, to enable teaching across various modalities according to students' needs. Furthermore, through the careful curation[3,4,5,6] of materials and the critical demystification of rural, remote, and Indigenous community life, I significantly contribute to the ongoing improvement of the health of our remote communities and the sustained well-being of the health professionals that will serve them. All of this is underpinned by my anthropological training and experiences living and working in rural, remote, and Indigenous communities to present a highly authentic, well-curated curriculum, in partnership with rural, remote and Aboriginal and Torres Strait Islander communities[7].

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