

Theory and Practice: Indigenous Health Assessment at Australian Qualifications Framework Level 9

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1. Executive Summary

This report is one of the key outcomes of an Australian Government Office for Learning and Teaching (OLT) funded project, *Assessment for learning in Indigenous health*. The project aims to (1) investigate assessment approaches used by academics involved in teaching Indigenous health at the Master's degree level; (2) compare current assessment and teaching practices with educational theory and with learning goals stipulated by the Australian Qualification Framework (AQF) at Master's level learning; and (3) develop practical teaching resources to inform and guide effective assessment for learning in Indigenous health. This report provides a summary of the results in relation to the first two goals.

A total of 41 academics involved in teaching Indigenous health were individually interviewed. Participants represented nine health related disciplines; Medicine (n=10), Nursing and Midwifery (n=8), Public Health (n=11), Social Work (n=4), Dentistry (n=3), Physiotherapy (n=2), Speech Therapy (n=1), Psychiatry (n=1), and Neuroscience (n=1) programs, from eight universities in five states in Australia and from one University in New Zealand.

The data from these interviews indicates that the learning and assessment goals and the assessment tasks currently being used in Indigenous health programs are varied, ranging from basic recall of information provided by the teacher through to tasks requiring students to locate, analyse and critique health-related knowledge as it applies to an Indigenous person or community of Indigenous people.

We mapped these learning and assessment strategies against learning goals stipulated by the AQF and literature-based discussions about effective assessment, and identified both synergies and gaps between theory and practice.

Key synergies between assessment practices and educational theories about assessment are that Indigenous health educators purposefully and thoughtfully seek to align learning goals with assessment tasks. Most of the assessment tasks identified in the data encourage students to analyse, synthesise and/or apply knowledge, including historical and socio-political factors which contribute to Indigenous health status and outcomes. Other tasks aim to encourage students to critically analyse and adopt a reflexive stance to foster skills of cultural awareness and culturally safe practice. A strong finding in the data was a high level of passion and commitment in educators. They articulated clear goals of teaching to disrupt 'settled' or 'unexamined' thinking in students and they sought to facilitate a shift in students' understanding and attitudes to Indigenous people's circumstances and strengths using stories, language analysis and case studies. The learning goals and assessment tasks align with high levels of cognitive learning where students are required to critique, analyse, and synthesise information (Biggs, 1996; Biggs & Collis, 1982; Bloom, 1956).

Paradoxically, this same passion to shift students' understanding represents a potential difference between theories about effective assessment and current practice. Current literature about learning and assessment suggests students need opportunities to develop skills to both identify and analyse problems so that they learn to recognise and critique standards of practice in a given area of health practice. Applied to Indigenous education, this requires a subtle shift away from learning and assessment tasks set and controlled by the educator to tasks explicitly designed to encourage students to identify, analyse and then develop and critique solutions to health problems in Indigenous health.

2. Project Background and goals

The past decade has seen the development and implementation of Indigenous Health Curricula in medical, nursing and allied health graduate and graduate entry programs in tertiary institutions (AIDA/MDANZ, 2012; Hunt, et al., 2015). Curricula documents have been developed for specific disciplines, and for multi-disciplinary use. These include the Committee of Deans of Australian Medical Schools (CDAMS) Framework (Phillips, 2004); the *National Indigenous Public Health Curriculum Framework* in Public Health (PHERP Reference Group, 2008); and most recently the *Aboriginal and Torres Islander Strait Health Curriculum Framework* for all health disciplines (DH, 2016).

Expected learning outcomes at Master's Level of higher education are stipulated by the Australian Qualifications framework (AQFC, 2013) and more specifically by health professional accreditation bodies (AASW, 2012; AMC, 2006; ANMAC, 2015). At a Master's level of education graduating students will potentially be future primary practitioners and leaders in Indigenous health care delivery. AQF learning outcomes stipulate that students achieve learning goals according to specific areas of knowledge, skills and application of skills (see p. 8 of this report).

Specifying learning outcomes to achieve higher education learning standards reinforces the role of assessment as a key driver of student learning (Kennedy, et al., 2006), and this applies to all areas of higher education teaching. In the area of Indigenous health curricula, no work has been undertaken nationally to clearly articulate the pedagogical practices of assessment necessary to educate for the types of Master's level learning outcomes stipulated by the AQF at level 9 (AQFC, 2013).

The project team is a collaboration between academics across Australia and New Zealand, all of whom are involved in educational research and/or Indigenous health research and teaching. The project aims to further advance the scholarship of Indigenous health education by examining current teaching and assessment practices at a Master's level and mapping them against specified higher education standards of learning, and pedagogies of teaching and learning

The project has 4 phases and this report represents the outcomes of Phases 1 and 2 of the project (Box 1).

Box 1: Phases of Research

- Phase 1 – conduct in depth interviews with academics in institutions across Australia and in New Zealand about their education practices and curricula and assessment in the area of Master's level Indigenous health.
- Phase 2 – compare that empirical data with a literature review of effective assessment at a general educational level and as it applies to the subject area of Indigenous health to develop a *Theory and Practice Report*.
- Phase 3 – produce a draft resource, the *Guide to Assessment in Indigenous Health* which identifies and explains good practice in assessment for Master's level Indigenous health programs based on empirical data collected and drawing from educational literature.
- Phase 4 – evaluate and further refine the *Guide to Assessment in Indigenous Health*, by going back to participating academics for further input via focus groups and other communication.

3. How to read this report

There are two key purposes of this report. The first is to present key elements of the data from project interviews with academics teaching Indigenous Health at a Master's level across Australia and New Zealand. The second is to compare the learning goals, teaching practices and assessment decisions identified by interviewees, with learning goals prescribed by the Australian Qualifications Framework (AQF); professional accreditation expectations and higher education literature on effective assessment. To achieve these purposes, the report is divided into three 'reporting' sections and one 'discussion and implications' section.

The first 'reporting' section (pp 8-10) presents a summary of educational standards and content requirements set by health professions accrediting bodies in the area of Indigenous Health. The AQF learning outcomes stipulated for level 9 (Master's level) are also included in this section.

The second 'reporting' section (pp 11-12) provides an overview of key discussions in the higher education literature about assessment practices designed for sustained and independent student learning.

The third 'reporting' section (pp 13-22) presents the research methods and the results of the interview data analysis. The learning and assessment goals, and assessment tasks are listed in disciplinary specific tables in the appendices and are summarised in the body of the report. Representative quotes provide examples of the interview data. A short summary of (i) the challenges educators experienced in teaching and assessing Indigenous health and (ii) the ways in which teachers actively positioned themselves as both holding knowledge and seeking to influence and inspire student understanding are also provided in this report.

The final 'discussion and implications' section (pp 23-25) synthesises the three reporting sections. It identifies synergies between current practices of teaching and assessing in Indigenous health and current literature and educational policies. It also highlights some gaps to be addressed in the final phase of developing a *Guide to Assessment in Indigenous Health*.

Reporting Section 1: Overview of educational standards and criteria guiding teaching and learning for Indigenous Health

The Australian Qualifications Framework

The Australian Qualifications Framework (AQF) was introduced in 1995. It sets out standardised teaching and learning outcomes according to three broad areas (knowledge, skills and application of knowledge and skills) for Australian qualifications beginning with certificate I (level 1) through to a doctoral degree (level 10; AQFC, 2013) (see Table 1). The AQF aims for consistency and quality in 'levels of learning,' to avoid problems where reportedly equivalent degrees comprise very different learning and teaching expectations and outcomes across tertiary institutions (Cumming, 2010; Fernandez et al., 2012; Keating, 2003).

Table 1: Master's degree qualification type descriptors (taken from AQF 2013)

AQF level 9 Master's degree criteria	
Summary	Graduates at this level will have specialised knowledge and skills for research, and/or professional practice and/or further learning
Knowledge	Graduates at this level will have advanced and integrated understanding of a complex body of knowledge in one or more disciplines or areas of practice
Skills	Graduates at this level will have expert, specialised cognitive and technical skills in a body of knowledge or practice to independently: <ul style="list-style-type: none"> • analyse critically, reflect on and synthesise complex information, problems, concepts and theories • research and apply established theories to a body of knowledge or practice • interpret and transmit knowledge, skills and ideas to specialist and non-specialist audiences
Application of knowledge and skills	Graduates at this level will apply knowledge and skills to demonstrate autonomy, expert judgement adaptability and responsibility as a practitioner or learning.

Health Discipline Accreditation Standards

Discipline specific accreditation standards developed by professional and government funded bodies set out the competency standards required for Indigenous health teaching and learning. These standards perform a range of functions including stipulating content; defining the scope of integration of Indigenous health with other areas of a curricula and specifying skills related to the specific health disciplines. These are summarised according to different health disciplines below:

Medicine: The Committee of Deans of Australian Medical Schools (CDAMS) framework outlines pedagogical principles, graduate attributes, learning outcomes, and some assessment types for Indigenous health education (Phillips, 2004). Adopted by the Australian Medical Council, (AMC, 2006) the learning goals and course content stipulated in the CDAMS framework now apply to both Australian and New Zealand medical schools. The AMC standards, stipulate that medical curricula must cover the culture, history and health of the Indigenous people of Australian or New Zealand (AMC, 2012, p. 8), and that medical graduates must achieve key competencies in Indigenous health. These include an awareness of the culture and history of Indigenous peoples,

the social and political determinants of health, and skills of culturally competent communication (p. 3).

Nursing and Midwifery: The Australian Nursing and Midwifery Accreditation Council (ANMAC) accreditation standards apply in Australia and New Zealand. As part of the standards, institutions are required to include a discrete unit focusing on Indigenous health in the curriculum (ANMAC, 2015, p. 17). Degree programs are also required to embed Indigenous health content into other subjects where the health conditions discussed are prevalent among Aboriginal and Torres Strait Islander peoples.

Social Work: The Australian Social Work Education Accreditation Standards (ASWEAS) require the following learning outcome: “[Students have a] knowledge and understanding of Aboriginal and Torres Strait Islander cultures and ways of knowing and be able to apply these to practice” (AASW, 2012, p. 12). Curriculum content is required to focus on developing students’ abilities to practice with Aboriginal and Torres Strait Islander people and communities (p. 13). Importantly, institutions must provide evidence that they are assessing all learning outcomes prescribed in the accreditation standards (p. 19). In New Zealand, the Social Workers Registration Board (SWRB) has as one of their ten core competencies for social worker registration that students have ‘competence to practise social work with Maori’ (SWRB, 2014).

Dentistry: Dentistry accreditation standards in Australia and New Zealand require that cultural competence is integrated within degree program learning outcomes and that this ‘this includes Aboriginal, Torres Strait Islander and Māori cultures’ (ADC/DCNZ, 2016). The standards require that all specified learning outcomes, attributes and competencies (including skills of cultural competence) are assessed.

Physiotherapy: The Australian Physiotherapy council standards require that physiotherapy programs integrate ‘explicit learning outcomes [concerning] culturally safe and responsive client centred health care for Aboriginal and Torres Strait Islander peoples’ (APC, 2015, p. 11). The standards also stipulate that all learning outcomes are appropriately assessed. The Physiotherapy Board of New Zealand (PBNZ, 2009) prescribes that institutions ensure students are capable of discussing the ‘implications of the treaty of Waitangi with respect to health care delivery’ (p. 18). The key learning outcomes highlighted in these standards are to incorporate knowledge of Indigenous health, including incorporating Maori perspectives on healthcare into physiotherapy practice.

Public Health: The *National Indigenous Public Health Curriculum Framework* (PHERP Reference Group, 2008) developed in 2008 specifies six core Indigenous health competencies for students in public health degree programs. These competencies focus strongly on skills of critical thinking and evaluation. They are endorsed by the Council of Academic Public Health Institutions Australia (CAPHIA) and the Commonwealth Department of Health and Ageing. The competencies require students to:

1. Analyse key comparative health indicators for Aboriginal and Torres Strait Islander peoples.
2. Analyse key comparative indicators regarding the social determinants of health for Aboriginal and Torres Strait Islander peoples.
3. Describe Aboriginal and Torres Strait Islander health in historical context and analyse the impact of colonial processes on health outcomes.
4. Critically evaluate Indigenous public health policy or programs.

5. Apply the principles of economic evaluation to Aboriginal and Torres Strait Islander programs with a particular focus on the allocation of resources relative to need.
6. Demonstrate a reflexive public health practice for Aboriginal and Torres Strait Islander health contexts. (p. 5)

Interdisciplinary: In 2016 the *Aboriginal and Torres Strait Islander Health Curriculum Framework* was released by the Australian Federal government (DH, 2016). This framework provides a comprehensive guide for institutions in the development and implementation of Indigenous health curricula. It outlines the kind of content that should be included for Indigenous health in disciplinary curricula, with suggested graduate attributes, learning outcomes, assessment tasks, and pedagogical principles for Indigenous health (Section 2). It provides an overview of what is required to implement Indigenous health in the curriculum, with reference to work force training and resourcing; positioning of Indigenous health in the curriculum, and the guiding educational principles and theories underpinning this work (Section 3). The framework also provides criteria for accreditation bodies to assist them in guiding the delivery of Indigenous health curricula (Section 4).

In summary: These accreditation documents provide a guide for the scope and the broad content of Indigenous Health curricula. However, little focus is given to the processes of assessment for achieving the suggested learning outcomes and competencies. The CDAMS Framework provides some suggestions for assessment types to be used in Indigenous health education. However, these are listed without exploration of their grounding in pedagogy or educational effectiveness (Phillips, 2004). The 2016 Aboriginal and Torres Strait Islander Health Curriculum Framework provides a more comprehensive overview of assessment types in Indigenous health and how these should be aligned to key learning outcomes (DH, 2016, Section 2, p. 18-24). Also, in accordance with recent discussion about the role of assessment, the Aboriginal and Torres Strait Islander Health Curriculum Framework emphasises the need for assessment tasks in Indigenous health that promote student capabilities for self-assessment, so graduates develop the capability to continue to review their own learning and performance when they enter the workforce (See section 3, p. 54-55).

Reporting Section 2: Overview of Higher Education Literature: An Assessment Reform Agenda

The role of higher education in producing graduates with AQF level 9 capabilities and attributes has evolved over the past several decades. From the 1950s, early discussions of higher education pedagogy and curricula design focused on distinguishing between types of cognitive processes students should use if they are to develop habits of learning for understanding (Biggs & Collis, 1982; Bloom, 1956). In 1996 John Biggs' highly influential constructive alignment model added to this cognitive learning focus and emphasised the importance of ensuring each of the elements of learning and teaching (learning goals, teaching strategies and assessment tasks) were aligned. The key idea being to ensure that the curricula tasks enabled students to construct their own learning according to specified learning objectives, which in turn were aligned with assessment tasks. Such close alignment between objectives, learning activities and assessment ensured that accurate judgments could be made about a student's cognitive performance (Biggs, 1996).

More recently, discussions in the higher education literature have shifted towards examining how assessment tasks can contribute to enabling students to become lifelong learners (Boud & Falchikov, 2006). This focus shifts the discussion from considering whether learning objectives and assessment tasks align with stated learning outcomes, towards a focus on how education can promote learning outcomes related to more sustainable concepts, including specific types of graduate attributes, such as employability and ongoing capabilities of critical thinking and self-directed learning (Boud & Falchikov, 2006). The AQF is an example of this trend in defining more generic attribute-based learning outcomes which focus on a students' capacity to independently, creatively and critically problem solve in their disciplinary area of practice (Delany, et al., 2016).

This means the role of assessment has shifted from how it can provide evidence of what students have learned to how it might equip students to continue to assess their own learning (Boud & Falchikov, 2006). David Boud has been highly influential in this space. In his 2000 paper, he defined assessment as sustainable if it 'meets the needs of the present without compromising the ability of students to meet their own future learning needs' (Boud, 2000, p 151).

The idea of sustainable assessment builds on Bruner's (1957) description of ensuring students 'go beyond the information given' and relies inherently on adult learning principles of offering choice and promoting students' autonomy (Candy, 1981). Sustainable assessment draws from adult learning principles which emphasise authentic, active and engaging learning activities, so students have autonomy and self-direction in responding to, and developing, their own understanding of curricula material (Knowles, 1981). From this basis, the focus of teaching and assessment approaches is necessarily on what and how students have learnt, and can continue to learn, rather than whether the knowledge they exhibit via an assessment task aligns with stated learning goals. These ideas about sustainable assessment have potentially profound implications for assessment practices. They mean that assessment tasks must be designed to encourage students take some responsibility for the design and the judgment of their own learning (Boud & Falchikov, 2006).

Boud and Falichov (2006), refer to an assessment reform agenda to strategically shift the goals of assessment. An assessment reform agenda sidesteps a prescriptive approach which lists definitive assessment tasks likely to achieve specific learning goals. Instead these authors suggest that

assessment should foster skills of life-long learning, requiring criteria based frameworks that allow students to view their own work in light of acceptable practice, and be designed according to the learning outcomes likely to be generated from engaging in them rather than the performance achieved (Boud & Falchikov, 2006). In addition, students will need opportunities to contribute to generating assessment tasks, so that the thinking work involved, moves from solving ‘abstract case’ problems set by academics towards developing learning skills to formulate problems that need addressing in the workplace.

Table 2 draws from the AQF level 9 standards and discussion in the higher education assessment literature. It lists learning and teaching and assessment practices designed to facilitate students to be active learners and to develop skills required for ongoing learning in the workplace. This summary will be used in section 4 of this report, to guide the comparison between the empirical data about assessment and current pedagogy and practice.

Table 2: Summary of assessment practices for life-long learning

<p>Assessment tasks which are designed for sustained learning (Boud, & Falchikov, 2006 p. 408-410)</p>	<ol style="list-style-type: none"> 1. Engage students with standards, criteria and problem analysis 2. Emphasise the importance of context 3. Involve students working in association with others 4. Promote transparency of knowledge 5. Foster reflexivity 6. Build learner agency for active learning 7. Provide scope for student initiative 8. Promote feedback seeking behaviours
<p>Assessment tasks which promote learning (from, Carless 2015, p 65)</p>	<ol style="list-style-type: none"> 1. Encourage deep approaches to learning 2. Mirror real world application of subject matter 3. Involve students as participants in a disciplinary community 4. Develop student metacognition by having them engage with criteria, standards and exemplars 5. Contain elements of student choice and personal investment 6. Stimulate and encourage sustained involvement and effort over time 7. Facilitate forms of dialogic interaction or feedback between teacher and learner
<p>Teaching strategies designed to achieve level 9 AQF learning outcomes (Delany, et al., 2016)</p>	<ol style="list-style-type: none"> 1. Immerse students in real practice situations 2. Focus on thinking skills required for their disciplinary practice both separate from, and within practice contexts. 3. Provide opportunities for and value students’ autonomous thinking. 4. Ensure students have the opportunity to learn the perspectives of a range of people or stakeholders relevant to their future disciplinary practice. 5. Provide opportunities for students to develop a sense of their own perspectives through discussion and problem solving related to authentic practice situations. 6. Use different media to stimulate and facilitate student engagement with content. 7. Ensure teaching tools and mediums (e.g., media, online, video, & simulation) actively connect with learning goals. 8. Recognise the importance of the teacher as a role model.

Reporting Section 3: Project methods and findings

Who we approached: We identified academics involved in teaching Indigenous health through the contacts of the project team members and also through direct searches of Australian University websites and outer sources.¹ Purposive sampling was used to obtain data (Palys, 2008).

Our sample: In total we conducted 41 semi-structured interviews. 35 were face-to-face, and 6 by phone. Figures 1-3 summarise demographic information about the sample

Figure 1: Main health discipline taught into by participants

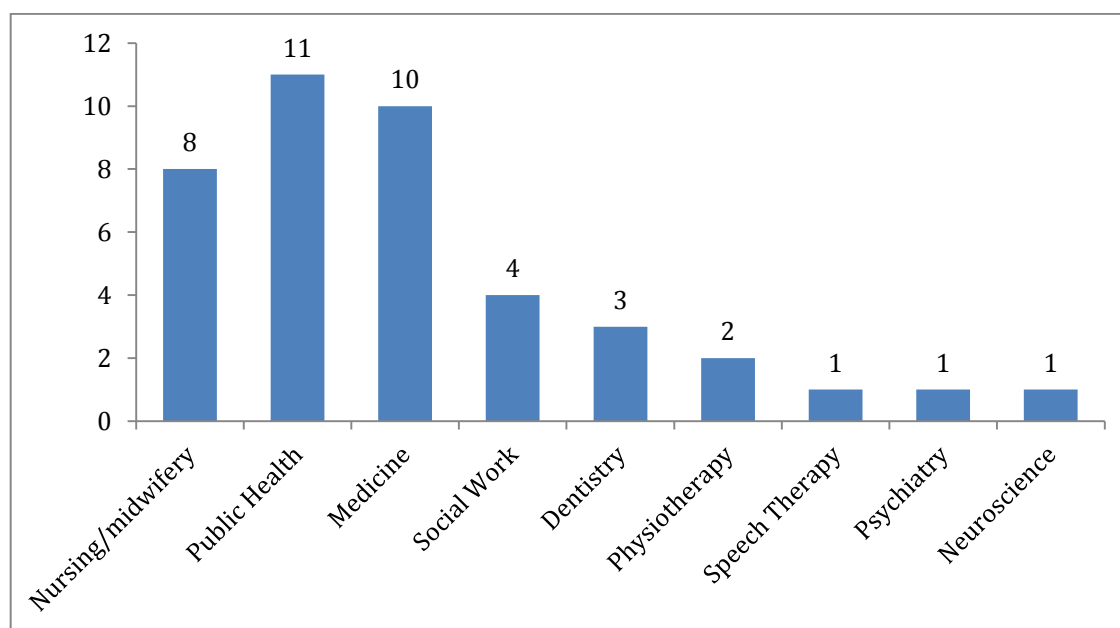
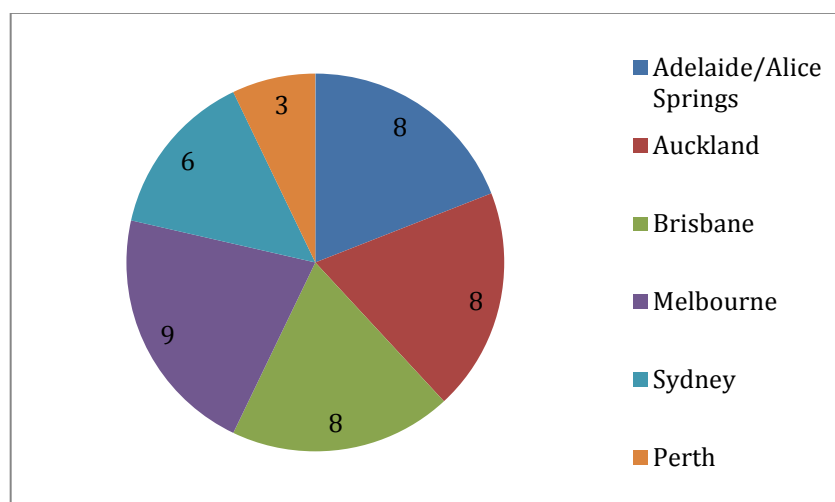
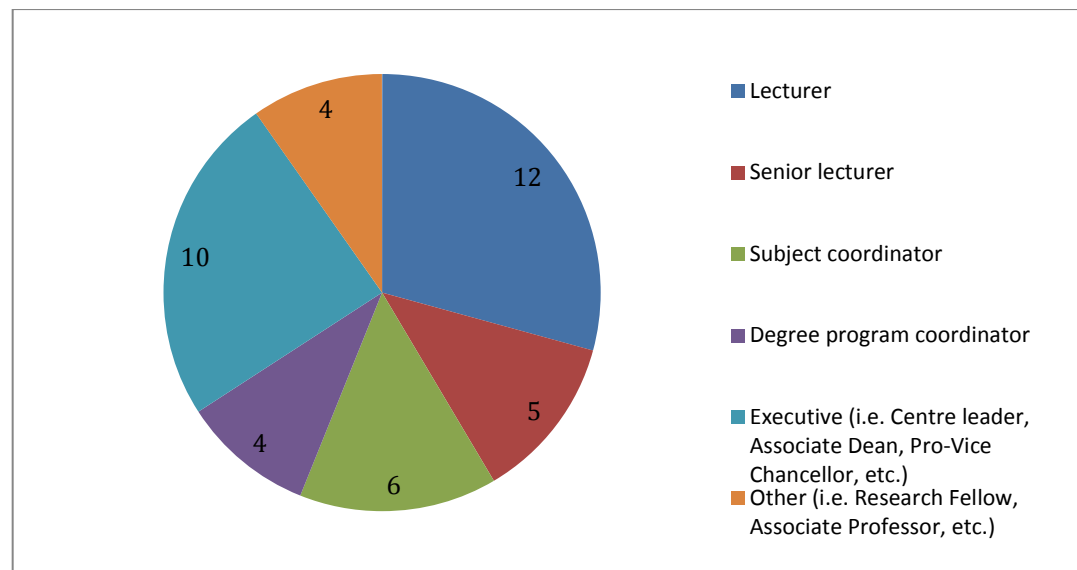


Figure 2: Location of participants



¹ These sources included institutional websites, refereed publications, and conference programs from previous Leaders in Indigenous Medical Education (LIME) Connections (e.g. see Ryan, Mazel, & Nicholls, 2015), the premier bi-annual conference for Indigenous health education in Australia and New Zealand.

Figure 3: Position of participants



In the interviews we asked:

Broad questions

- Can you tell me about the focus and content of Indigenous health education in your subject/program?
- Was your subject/program developed according to any prescribed learning outcomes or standards?
- How did these outcomes influence the focus/content/assessment of Indigenous health education in your subject/program?

Questions about Indigenous health assessment tasks

- Can you describe how Indigenous health is assessed in your subject/program (if at all)?
- [For each assessment] can you talk about the purpose of the assessment?
- How is this assessment marked?
- Can you talk about how the assessment relates to the focus and content of your subject/program?

Questions about the influence of AQF9 Learning outcomes in the design of assessment tasks

- Can you highlight which of the AQF 9 standards according to knowledge, skills and attributes relate to your subject/program, in particular Indigenous health education in your subject/program?
- Can you comment on how your choice of assessment relates to these standards?
- Are these standards useful for you in developing content/assessment?
- How have they been useful?/Why are they not useful?

Method

All interviews were conducted by CD, LD, and SE², either separately (n=25), or combined (n=16). The first two interviews conducted at the University of Melbourne were used as 'pilot' interviews. These are also included in the data set. Following the pilot interviews, an interview guide (see appendix 1) was developed and sent to each participant prior to the scheduled interviews. The interview guides outlined the topics to be discussed enabling the participant to have prior information and to encourage a more conversational approach about teaching practices (Rapley, 2004; Roulston, 2010). Participants were asked to describe where assessment fits in their course/subject/ curriculum; to give specific examples of assessment strategies; discuss factors influencing decisions about assessment; and identify challenges they had encountered in teaching and assessing Indigenous health.

Data analysis

The data (full interview transcripts) were analysed using both content (Elo & Kyngäs, 2008) and thematic analysis (Braun & Clarke, 2006). Table 3 below summarises the questions guiding each of these approaches and a brief description of the main results. Although the primary goal of this project is to explore how academics are designing and implementing assessment, the study explored the topic of learning, teaching and assessment more broadly. While assessment is highly influential in determining how and what a student learns, assessment is also an integrated part of a curriculum. Our findings therefore include assessment within the whole learning and teaching context.

Table 3: Data analysis process

Method of analysis	Questions guiding analysis	Findings
<p><u>Content Analysis</u></p> <p>Completed in NVivo by project manager (LD).</p> <p>Parent nodes were developed directly from the transcripts. Sub-node categories were developed as categories within the main 'content-based' themes.</p>	<p>Within each transcript...</p> <ol style="list-style-type: none"> 1. What learning goals are discussed? 2. What assessment is described? 3. What goals of the assessment are identified? 	<p>Parent nodes developed using NVivo software included:</p> <p>Finding 1: Learning goals</p> <p>Finding 2: Assessment types</p> <p>Finding 3: Assessment goals</p>
<p><u>Thematic analysis.</u></p> <p>Completed by all members of project team.</p> <p>Team members read and marked up transcripts, and discussed these in meetings.</p> <p>Meeting minutes and transcript annotations were used to inform the development of themes.</p>	<p>Within each transcript...</p> <ol style="list-style-type: none"> 1. What do you think is significant/ important in the Indigenous health content you teach? 2. Why do you think this is important? 3. What are you trying to achieve in your teaching and assessment? 4. What do you see as your role in educating students in this area? 	<p>Key emergent themes from data included:</p> <p>Finding 4: Teaching and assessment challenges</p> <p>Finding 5: The role of the teacher in Indigenous health</p> <ol style="list-style-type: none"> a. Teaching as positioning b. Reflexive teaching

² CD: Associate Professor Clare Delany, LD: Dr Lachlan Doughney, SE: Professor Shaun Ewen.

Findings 1-3 report participants' description of learning goals, assessment types, and assessment goals. Findings 4 and 5 present themes which emerged from participants' expanded responses to the interview questions. Brief descriptions of these themes are provided with more detailed explorations of them to be provided in forthcoming publications.

Appendices 2-10 of this report also provide a disciplinary breakdown of interview data with tables providing detailed synopses of participants' learning goals, assessment tasks, assessment goals and teaching and assessment challenges in each discipline. The disciplines most strongly represented in the findings are medicine, nursing, and public health.

Findings (1): Learning goals

A key idea across all of the learning goals identified in the data, was a desire for students to develop a deep and reflexive understanding of factors influencing Indigenous health. Very few participants expressed teaching and learning goals to impart facts and information about the status of Indigenous health or the types of health interventions likely to be relevant for specific disciplines. Instead the learning goals were expressed as a desire to transform students' understanding.

The following quotes are examples taken from the whole data set and are representative of participants' explanations of their learning goals.

Learning goals: Core areas of knowledge

Participants described learning goals related to core areas of knowledge they wished students to attain. These included a critical awareness of Indigenous perspectives and knowledge about health and well-being, Indigenous culture, and history and social determinants which have impacted on their health:

A graduate needs to know the local community, the local community's history, the local culture and traditions. Some of the who, what, where sort of stuff. But also know ways of working, so how do you work effectively with people as individuals or families or communities. And then the basics of knowing about what are the conditions that people live in, what are the social determinants of health, what are the ongoing impact of colonization, not just as a past event but as a contemporary impact as well. All of that context that explains the poorer health outcomes now in comparison to what they should have. So trying to get the graduates to understand the origins of disparity of health, to know their contribution and the health practitioner's contribution to disparities, and give them the skills so they won't be active participants, be that consciously or unconsciously in perpetuating the disparities. (M2)

Learning goals: Reflexivity

Participants spoke of wanting to develop in students an ability to recognise and critically reflect on their own culture, values, and role as a health practitioner.

One of the skills that we try and teach is reflexivity. Because we find that we can't have students engaging with Aboriginal and Torres Strait Islander peoples without first examining how they're looking at Aboriginal and Torres Strait Islander people, so I think that's a really important skill that students have to have. (IS1)

[I want to them to develop] self-awareness of where they've come from and how that might actually inform their motives as well. So when we talk about race and culture it's not just about indigenous culture and race. It's about their own, which I think is important. It's an interesting thing because it's rare for us to talk about a white culture or being white. We talk about being black or a black culture. They almost don't really think that they have a culture. But then you point that out and then 'well how does that inform what you do, what you actually expect and what your goals are in doing this particular subject?' That makes them critically reflect on where they are, and where they're coming from. (PH12)

Learning goals: Critical Thinking and Analysis

Skills of critical reflection and analysis were identified in both medicine and dentistry, as a means of helping students to unpack and recognise misconceptions, stereotypes, or biases that they may have held about Indigenous people, history and culture:

We very much focus on dispelling a lot of the myths around Aboriginal history that students come with, and they come with a limited understanding often, because they have not been taught much about Aboriginal history in school. Sometimes they are hearing another version of history for the very first time. We see a range of responses in the classroom which might involve cognitive dissonance, whereby students find it very difficult to rationalise this other version of Australian history. So students have a broad range of responses, either hostile, angry, denial, guilt, shame, to very accepting. They want to hear this other version of history. (M5)

Many participants expressed a concern to encourage students to critique their own views but, again without blaming or judging their perspectives:

I was thinking well, how do you evoke empathy, how do you get people to shift, in a way that is not slapping them around the ears for their own ignorance, that is not finger wagging? I once watched a lecturer start off by saying that 'your people murdered my people' and I cast my eyes around for the exit doors and you know the students were just pouring out of the room, and I am thinking, well, I understand where she is coming from, but that is not a teaching approach, that is not going to work. You are just losing people. (PH6)

Learning goals: Shifting attitudes

Another learning goal raised in particular by medicine and public health participants, was a desire to motivate students to perceive Indigenous health as an important, interesting and highly rewarding aspect of their healthcare:

It is about engagement, I actually want them to care about Indigenous health, and I don't care what door I take to get them there. I want them to hear items on the news, like related to prison incarceration rates, and to actually hear it, and also understand how it will inform their consultations. (M6)

Learning goals: Skills of communication, building relationships, culturally safe practice

In physiotherapy, speech pathology, psychiatry, and neuroscience, skills to build relationships between health providers and Indigenous people and communities were raised:

I think the students need to have relationship building skills... these relationship building skills – they are relationships that are important, and they go from kind of big to small, or small to big. You've got your relationships with your Maori clients, and their families and with your colleagues and with other Maori support groups - like if you're working in a hospital or an education setting you'll have a team whose job is to provide cultural support, but I've seen often speech therapists building good relationships with those Maori teams. Then there's kind of relationship building on a broader scale, like with Maori community groups and things in your own community. (SP1)

Educators aimed to give students skills to communicate effectively in Indigenous health contexts. These included skills to recognise communication which differed from their routine clinical assessment:

We [attempted to get students] to be aware of their own communication style and how culturally effective that was and to get them to understand a different communication style. One small example is around silence. English doesn't accommodate silence, Indigenous communication have silence embedded so trying to get them to be a little reflective and able to adapt their communication style to suit. (N2)

Findings (2): Assessment types

Assessment tasks described by participants are listed in appendices 2-10, grouped according to their health disciplines. There were a number of assessment tasks common to all of the health disciplines. For example, reflective assignments were used by most disciplines, and such tasks comprised:

1. Describing and reflecting on an experience such as a visit to an Indigenous community, or on course content, or
2. Reviewing and analysing a form of media including how it influenced them (feelings beliefs, preconceptions and professional identity)
3. Critically analysing a policy, journal article, or other form of media, to identify and critique issues of contention and to reflect on how this aligned with or challenged their beliefs.

Drawing from previously published taxonomies of learning (Bloom, 1956; Biggs & Collis, 1982) we developed a typology of assessment to categorise our identified assessment tasks based on the type of cognitive work the task required of students. The typology is summarised below:

Type 1: Assessment (Receive and recall information)

Following reading about or listening to information about how history, culture, and socio-political events have impacted on Indigenous health, type 1 Assessment tasks ask students to recall that knowledge by responding to set questions via MCQs or short answer questions (for examples see appendix 2, medicine).

Type 2: Assessment (Analyse given information)

Students receive information about how history, culture, and socio-political events have impacted on Indigenous health. The assessment tasks require students to identify assumptions and values underlying the information and to begin to distinguish between their own values and understanding and other perspectives and ways of framing information. Some assessment tasks then ask students to analyse the practical (healthcare) implications of their critical analysis (for examples see appendix 3, nursing and appendix 5, social work).

Type 3: Assessment (Source, identify and analyse information)

Students are asked to locate and identify sources of information (film, literature, health policies) about the Indigenous Health Context and to critically examine this information, often by critiquing the values and perspectives within it. Some assessment tasks ask students to then present their analysis via ppt or by writing a policy document (for examples see appendix 4, public health and appendix 6, dentistry)

Type 4: Assessment (Apply knowledge to experience)

Students are asked to apply their knowledge and understanding of information to a specific issue in the workplace, or to reflect on their experience of working in an Indigenous health context (for examples see appendix 2, medicine and appendix 4, public health)

Type 5 (Use experiential knowledge to develop practice-based application)

Students are asked to use their knowledge and skills in an authentic clinical/social context relevant to Indigenous health and to evaluate this knowledge application. This may include evaluation involving Indigenous people or evaluation by the student or university (For an example see appendix 7, physiotherapy)

Findings (3): Assessment goals

Participants described a range of assessment goals in Indigenous health. The following quotes provide examples of participants' stated assessment goals:

Assessment goals: Assessment of knowledge

Participants spoke of using assessment tasks to evaluate students' understanding of Indigenous health content:

Part of the way we teach is that we give students pre-readings to do before they come to the sessions. To make sure that they have actually done their pre-readings we have weekly multiple choice questions online. It's a really simple assessment that is worth a small amount of their grade. It is just to check their surface level understanding, to make sure that they have gone and done what we have told them to do for this week. (M4)

Assessment goals: Assessment of attitudes

A commonly raised assessment goal was to influence and then evaluate student attitudes over time:

So there are some assessments that work very well for knowledge and skills but so much of what we're dealing with in Aboriginal and Torres Strait Islander health is about attitude and behaviour. So we need to be very clever about the way in which we assess that. Oftentimes, those things aren't about one point in time. It's actually an assessment over time. (PH13)

Assessment goals: Critical thinking and reflection

Participants spoke of designing assessments to open up students' thinking and to develop their skills of critical thinking, analysis and reflection to assess the reasoning behind less visible assumptions, values, and positions embedded in different sources (i.e. policy documents, newspaper articles, journal articles, etc.):

The deconstruction task is about getting students to be reflective, engage with critical thinking, and so looking at being able to critically think about attitudes and assumptions that they may have had, or attitudes and assumptions that may be out there. But, also looking at academic material and literature in there that can actually, I guess you could say, disprove those attitudes, assumptions, and biases that are actually out there. (M4)

Yeah, I'm looking to really kind of open up their minds. I guess that's a really big part of critical reflection. I want them to think in terms of their own position and how that might actually influence how they think as well... It's not really about being right or wrong. I think some of them have a sense that there are answers which are right and answers that I want. Like I said I try to get that out of them early. The way I do that is that their first piece of assessment is that they have to respond to three statements. They basically have to critically reflect on those statements, tie in their own view and where that view comes from. (PH12)

Findings (4): Teaching and assessment challenges in Indigenous health

Although the core topic of enquiry was a description of assessment tasks, participants raised a number of challenges that they regularly encountered in this area of teaching practice. These are summarised below. Teaching and assessment challenges described by educators in each discipline are also listed in appendices 2-10. They will be published with accompanying quotes in forthcoming papers.

Encountering and responding to student resistance

Student resistance to learning was a strong theme throughout the data. Students were described as resistant to learning Indigenous health content, especially if they perceived they were being blamed. Educators discussed a range of strategies to navigate this challenge, including fostering culturally safe learning environments (where judgements and blaming were discouraged), and demonstrating how learning outcomes in Indigenous health could be applied in other clinical situations.

Engaging students from diverse backgrounds

Engaging students from diverse backgrounds in Indigenous health content was described as a challenge related to student resistance. Some participants commented that international students sometimes did not see the relevance of Indigenous health content. However, others noted that international students were often unburdened by many of the biases and prejudices of other students, and highlighted strengths that they could bring to classroom interactions, due to their home country perspectives. A further concern relating to student diversity was how to ensure the learning and teaching environment was culturally safe for Indigenous students.

Resistance to critical thinking assessments

The expectation for critical thinking was described as challenging for students in the health sciences. One reason postulated for this was that they had not been expected to demonstrate criticality in their learning in their previous biomedical focussed educational experiences. Another reason was that students preferred assessment tasks requiring a definitive answer rather than a less certain argument analysis.

Assessing attitudes

Assessing attitudes was described as a challenging aspect of assessment in the three most interviewed disciplines, Medicine, Public Health, and Nursing. Participants expressed some uncertainty about whether it was possible to shift attitudes and even if it were whether those changes could be assessed.

Positioning Indigenous health within curriculum

A challenge identified particularly in public health and dentistry was how and where to position Indigenous health content within the degree program. In public health this challenge centred on whether Indigenous health content could be better positioned as part of elective units, which could often give educators more space and time to teach students, or whether it should be part of core curriculum units which ensure all students receive an education in Indigenous health. In medicine a positioning related challenge concerned ensuring there was appropriate weighting of Indigenous Health Assessment in the curriculum. Indigenous health assessments in medicine - usually MCQs and short answer questions – were often provided as a small component of a large exam.

Having the 'right' people teach Indigenous health.

One challenge raised within the interviews concerned how to ensure the most appropriate training for staff to teach and assess Indigenous health content. This concern included the adequacy of training, the level of confidence of educators in teaching Indigenous health, and the need to secure substantive academic appointments and resources for Indigenous health education. A related challenge was ensuring the most appropriate people evaluated student learning. Some participants expressed the view that Indigenous community members, as the recipients of care, should be the

ones to determine whether students can practice in a culturally safe way, but that this required adequate resourcing.

Findings (5): The role of the educator

Teaching as positioning

A strong theme to emerge from the data was the idea of Indigenous health teaching as a type of *positioning*. When discussing the content, the learning goals and the assessment in Indigenous Health, many academics spoke about their connections with Indigenous culture and health. They described how they positioned themselves personally, politically and culturally as teachers in relation to this knowledge and practice. This influenced the teaching strategies they used and the way they framed the content for their students.

Reflexive Teaching

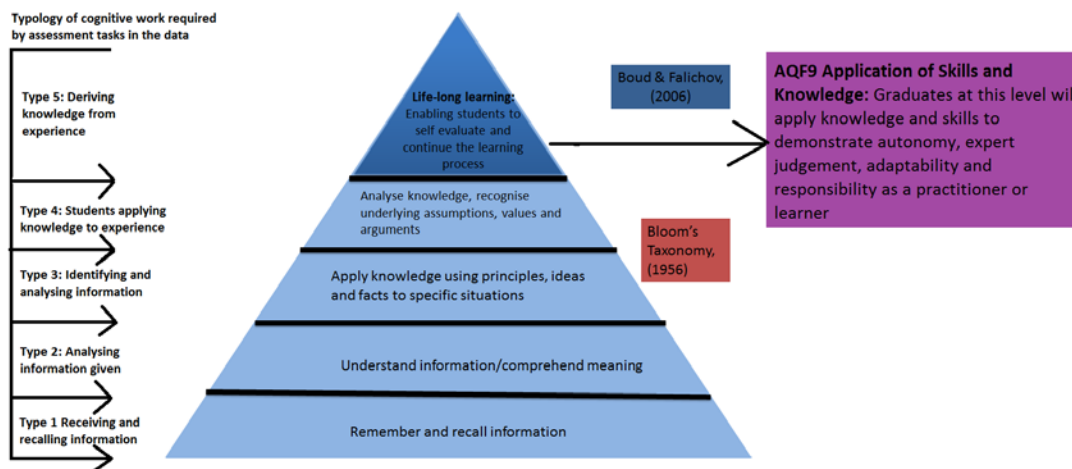
Educators stressed the importance of knowing what they were bringing to the curriculum in Indigenous Health and knowing how that set of beliefs or philosophy about health practice might affect students. Many discussed the importance of presenting a strengths based approach to the challenges of Indigenous Health and they explicitly set out to avoid presenting information which might induce feelings of guilt or resistance to learning about Indigenous health.

Reporting Section 4: Discussion and implications

Our data indicate that the assessment tasks currently being used in Indigenous health are varied, ranging from evaluating basic knowledge recall of information provided by the teacher through to requiring students to locate, analyse and critique health knowledge as it applies to an Indigenous person or community of Indigenous people.

We identified five types of cognitive work that the assessment tasks in the data were likely to generate. We compared these types of thinking to similar scales of cognitive work previously described in higher education literature. Figure 5, depicts the first four levels of a pyramid representing levels of cognitive work described in Bloom's taxonomy (1956), and the fifth level of the pyramid represents the type of approach advocated more recently by Boud and Falchikov (2006). This top section of the pyramid aligns with the learning outcomes specified in the application of skills and knowledge category of AQF level 9. Assessment types 1-4 identified in our data map closely to the first four levels of the pyramid and were widespread (see appendix 2-10). Assessment type 5 begins to map to what is required by the top level of the pyramid (see appendix 7 for a description of the task of this type in our data).

Figure 5: Alignment between theory and practice of assessment.



Synergies: There were several synergies between assessment tasks described by participants in the data and contemporary assessment pedagogy. For example, many of the type-2-4 assessment tasks we identified in our data aligned with upper levels of cognitive learning taxonomies requiring synthesis, analysis and application. There was also evidence of alignment between learning and assessment goals stated by participants and the assessment tasks they used (Biggs & Tang, 2007).

Gaps: However, there were some discrepancies. For example, in Medicine, communication skills were a common learning goal of participants, but were rarely assessed (see appendix 2). In nursing, cultural safety was a key learning outcome although the assessments required a written response, so were not aligned to demonstrate the more practice based aspects of culturally safe practice (see appendix 3).

The main gaps, or differences between theories about effective assessment and current practice identified in this research, concern the relative emphasis on student self-evaluation and critique of their own learning. Current literature about learning and assessment suggests students need opportunities to develop skills to both identify and analyse problems so that they learn to recognise and critique standards of practice in a given area of health practice (Boud & Falchikov, 2006). Very few assessment tasks from our data used this assessment approach. Our research suggests a subtle shift is required; from learning and assessment tasks set and controlled by the educator; to tasks explicitly designed to encourage students to identify, analyse and then develop and critique solutions to health problems in Indigenous health.

The following report recommendations provide some ideas for addressing this difference between assessment theory (Table 2) and examples of current practice. These recommendations will be further developed into practical teaching ideas in the final report of this project; The Assessment Guide.

Recommendation 1: Integrate student self-assessment in assessment tasks

Providing students opportunities to self-assess their own learning and their peers builds their skills in judging learning outcomes. For example, in a policy review task, students could be given the additional task of evaluating another student's policy recommendations, using the same criteria as the educator. This can develop in students an awareness of the goals of the task, and skills for evaluating performance in that context which they can transfer to reviewing the quality of their own work.

Recommendation 2: Develop assessment tasks that give students agency and leadership

While self-directed and independent learning through assessment was a goal of some participants, in the majority of assessment tasks, the parameters and content of tasks were set by the teacher, and all students engaged with the same material. Assessment tasks need to be designed so that students are involved in identifying challenges and devising solutions in Indigenous health education.

Recommendation 3: Greater emphasis on practice based assessment tasks

Very few assessment tasks were practice-based (see appendices 2 and 4 for the main examples of these tasks found in Medicine and Public Health). Students should ideally be given the opportunity to both practice and be assessed on the skills that they will end up using in the workplace for Indigenous health.

Recommendation 4: Greater emphasis on assessment tasks that require collaboration & engagement between students and other stakeholders

While collaboration with others was a key element of assessment tasks in some disciplines (Nursing, Physiotherapy) in most disciplines the assessment was comprised of isolated tasks completed by an individual learner (esp. Public Health, and Medicine). Assessments requiring students to liaise with other students may assist them to develop relevant workforce collaboration skills students.

Community engagement was a feature of learning and teaching described by participants but rarely used in assessment. Involving Indigenous communities in designing content, and in evaluation was a key goal expressed by some participants based on the principle that the recipients of care should be the ones to determine whether students are culturally safe or not. As part of this recommendation it is suggested that, where possible, institutions liaise with and give leadership to Indigenous communities in assessment processes. This process of developing strong partnerships with communities is similar to the strong associations between tertiary institutions and clinical placements in other areas of health practice.

Recommendation 5: Develop assessment tasks which focus on communication and other non-written skills

The majority of tasks in the data are written and focus on critical/analytical skills and knowledge (i.e. see appendix 4 for the assessment tasks in Public Health, the majority of which had this focus), and few on communication skills, despite this being a key learning outcome described by interviewees. To ensure students have workforce related skills practical communication skills should be a strong focus of learning and assessment.

Limitations

This research collected data comprising academics' descriptions of their teaching and assessment practices. These descriptions must be placed within the broader context and workplace-based constraints faced by academics. For example, the resources and opportunities available to academics can often dictate which assessment tasks are possible (Bearman, et al., 2014; 2016; Dawson, et al., 2013). These include classroom space, mode of student attendance (i.e. online, or in person), student access to technology, tutor/student ratios, opportunity to engage with community organisations and industry, and proportion of casual or permanent staff. In addition, an academic's capacity to develop and design Indigenous health content and associated assessment may be constrained by whether the subject content is included as a discrete subject within a course or whether it is embedded within other subject areas (AIDA/MDANZ, 2012, p. 23-24).

The small sample size of the data is a further limitation to the generalisability of this research. The views of academics in the data may not be representative of all of the educators in Australia and New Zealand who teach Indigenous health into different health related programs. Additionally, using interviews to explore teaching practice is one step removed from observing teaching practices, and therefore may not capture the nuances and detail of everyday experiences (Atieno, 2009, p. 17).

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Appendix 1: Interview question guide

Interview guide – Indigenous health education in your Master’s course/subject

This research and interview is exploring three main areas about Indigenous Health Education;

- 1) the focus and content of Indigenous health education in subjects/programs at Master’s level;
- 2) types of assessments used
- 3) the influence (if any) of prescribed learning outcomes

1. **The focus and content Indigenous health subjects at Master’s level.** Can you tell me about the focus and content of Indigenous health education in your subject/program in the following broad areas

Knowledge	
Skills	
Application of knowledge and skills	
Other (attitudes/attributes)	

2. Types of assessment

Can you describe how Indigenous health is assessed in your subject/program (if at all)?

Can you talk about the purpose of the assessment?

How is this assessment marked?

Can you talk about how the assessment relates to the focus and content of your subject/program?

Assessment tasks

3. The influence of prescribed learning outcomes.

Was your subject/program developed according to any prescribed learning outcomes or standards?

How did these outcomes influence the focus/content/assessment of Indigenous health education in your subject/program?

One set of prescribed learning outcomes is the Australian Qualifications Framework (AQF). Level 9 represents Master's level qualification. Can you comment on this framework of learning outcomes and whether it influenced your subject/program content broadly, and in particular the parts of it that pertain to Indigenous health?

If it did influence it, can you indicate how?

If the AQF did *not* influence your program/subject assessment can you discuss the standards which informed what you used?

4. Australian Qualifications Standards level 9 (Master's)

Can you highlight which of these standards according to knowledge, skills and attributes relate to your subject/program, in particular Indigenous health education in your subject/program?

Can you comment on how your choice of assessment relates to these standards?

Are these standards useful for you in developing content/assessment?

How have they been useful?/Why are they not useful?

Knowledge	<ul style="list-style-type: none"> • a body of knowledge that includes the understanding of recent developments in a discipline and/or area of professional practice • knowledge of research principles and methods applicable to a field of work and/or learning
Skills	<ul style="list-style-type: none"> • cognitive skills to demonstrate mastery of theoretical knowledge and to reflect critically on theory and professional practice or scholarship • cognitive, technical and creative skills to investigate, analyse and synthesise complex information, problems, concepts and theories and to apply established theories to different bodies of knowledge or practice • cognitive, technical and creative skills to generate and evaluate complex ideas and concepts at an abstract level • communication and technical research skills to justify and interpret theoretical propositions, methodologies, conclusions and professional decisions to specialist and non-specialist audiences • technical and communication skills to design, evaluate, implement, analyse and theorise about developments that contribute to professional practice or scholarship
Application of knowledge and skills	<ul style="list-style-type: none"> • Creativity and initiative to new situations in professional practice and/or for further learning • High level personal autonomy and accountability • Ability to plan and execute a substantial research based project, capstone experience and/or piece of scholarship

Appendix 2: Medicine data analysis

Ten academics involved in Indigenous health education in medicine programs were interviewed. The academics were at five different institutions, in five degree programs. Three of the degree programs were Doctor of Medicine programs (DM), and the remaining two were Bachelor of Medicine, Bachelor of Surgery (MBBS) degree programs.

Medicine learning goals	Medicine assessment tasks	Medicine assessment goals	Medicine Challenges
<ol style="list-style-type: none"> 1. To develop a deep understanding of culture, history and determinants of health related to Indigenous people 2. To dispel stereotypes or misunderstandings about Indigenous people and history held by students 3. To develop in students foundational knowledge, and then teach them to apply it 4. To develop a capacity to communicate effectively within Indigenous health contexts. 5. To assist students to distinguish between their own culture and the cultural values held by Indigenous people, in order to practice in a culturally safe way. 6. To develop abilities to recognise and deconstruct values and assumptions 7. To increase students' motivation to take an interest in Indigenous health issues 	<p>Short answer questions (5 Institutions)</p> <ul style="list-style-type: none"> ○ Regular single best answer questions concerning Indigenous health over the semester ○ Short answer questions in exams <p>Multiple choice questions (MCQs) (4 institutions)</p> <ul style="list-style-type: none"> ○ MCQs in exams (content knowledge test) ○ Online MCQs on weekly readings. <p>Reflective assessments (2 institutions)</p> <ul style="list-style-type: none"> ○ Written reflection on an Indigenous cultural experience, students automatically receive 5% for submission ○ 'Photo essay' in which students reflect on their experiences using photos ○ Reflective portfolios, in which students periodically provide reflections on Indigenous health content, and learning activities they engage with over the course of a semester <p>Deconstruction exercises (2 institutions)</p> <ul style="list-style-type: none"> ○ Deconstruct problematic statements ○ Deconstruct journal articles <p>Practice based assessments (2 institutions)</p> <ul style="list-style-type: none"> ○ OSCEs with Indigenous patients ○ Performance on placement in a remote Indigenous community, assessed by doctor and an Indigenous health worker that they are paired with <p>Participation assessment (1 institution)</p> <ul style="list-style-type: none"> ○ Hurdle assessment requiring students to log their attendance at a minimum of lectures, and other material related to Indigenous health, students can choose to leave short written reflections on these experiences 	<ol style="list-style-type: none"> 1. To encourage students to be reflective and to critically think about Indigenous health 2. To provide evidence of student engagement (over time) in Indigenous Health content knowledge 3. To monitor change in student learning. 4. To assess communication skills necessary for working in Indigenous health 5. To measure student knowledge about Indigenous health issues 6. To promote independent and self-directed engagement with Indigenous Health Content 	<p>Pedagogical challenges</p> <ol style="list-style-type: none"> 1. How to assess attitudes 2. Avoiding reducing knowledge about Indigenous health to a single best answer 3. Engaging students from diverse backgrounds in Indigenous health content 4. Student resistance to learning. 5. Introducing students to challenging and sometimes emotional topics, like implicit bias, privilege and whiteness <p>Curriculum challenges</p> <ol style="list-style-type: none"> 6. Having sufficient weighting attached to assessment in Indigenous health 7. Including assessment for Indigenous health in the curriculum. <p>Workforce challenges</p> <ol style="list-style-type: none"> 8. Staff requiring training to appropriately assess Indigenous health

Appendix 3: Nursing data analysis

Eight academics involved in Indigenous health education in nursing programs were interviewed. The academics were at 6 institutions, and were involved in seven degree programs. Four of the seven programs were in Master's level nursing programs. The remaining three programs were Bachelor of Nursing (BN) programs

Nursing learning goals	Nursing assessment tasks	Nursing assessment goals	Nursing challenges
<ol style="list-style-type: none"> 1. To foster a level of critical reflection and reflexivity about the role of nursing in relation to Indigenous health 2. To empower students to recognise potential and strengths within Indigenous communities 3. To develop students' consultative leadership skills 4. To develop skills, knowledge and attitudes required for cultural safety (transferable to within and outside of Indigenous health contexts) 5. To raise student awareness about the importance of understanding Indigenous people's history, culture, and perspectives on wellbeing 	<p>Reflective assessments (3 institutions)</p> <ul style="list-style-type: none"> ○ A reflective piece on identifying the location of the traditional owners of where they were born ○ A written booklet outlining their experiences while on placement ○ Students use an Indigenous framework to develop a critical reflection upon how they can make a difference to Indigenous health in their role as a nurse. <p>Case studies (2 institutions)</p> <ul style="list-style-type: none"> ○ A case study with an Indigenous patient which students answer a few MCQs about. Placed within a broader exam with a set of case studies and related MCQs. ○ 40% written case study assignment, on an Aboriginal patient (students decide which Indigenous community the patient comes from) <p>Short answer questions (2 institutions)</p> <ul style="list-style-type: none"> ○ Short answer question in exam on the social determinants of health and the impact of specific social determinants in relation to Indigenous populations ○ Short responses to weekly content (totalling 1500 words over the semester) <p>Other written assessments (2 institutions)</p> <ul style="list-style-type: none"> ○ Synopsis of a critical issue (750 words) which go on to blackboard and can be viewed by all students. ○ Students must review a piece of media relevant to Indigenous health (book, artwork, film, etc.), and while doing so ask how Australian history contributes to increased rates of chronic illness within Indigenous Australians. <p>Policy critique and/or review (1 institution)</p> <ul style="list-style-type: none"> ○ Group assessment focusing on locating a government policy pertaining to Indigenous health, which they must make recommendations about. Formatively linked to individual assessment as a proposal concerning Indigenous health relevant to their workplace. <p>Workplace proposal assessment (1 institution)</p> <ul style="list-style-type: none"> ○ Proposal for Indigenous health policy and practice changes in their workplace (task follows earlier policy review task). <p>Deconstruction exercises (1 institution)</p> <ul style="list-style-type: none"> ○ Deconstruct problematic statements <p>Oral presentation (1 institution)</p> <ul style="list-style-type: none"> ○ An online group video presentation about a topic pertaining to Indigenous health history and culture uploaded to blackboard 	<ol style="list-style-type: none"> 1. To cumulatively examine the development of attitudes over time 2. To raise awareness about factors impacting on culturally safe practice 3. To achieve a critical level of exposure to Indigenous health content 4. To encourage critical thinking about Indigenous health issues 5. To foster a strengths based focus rather than a deficit model for understanding Indigenous Health 6. To develop an understanding of what policies for Indigenous health exist, how these translate into practice, and how to take a leadership role in effecting policy change in a healthcare institution. 	<p>Pedagogical challenges</p> <ol style="list-style-type: none"> 1. Challenge of shaping and assessing student attitudes 2. Engaging students from diverse backgrounds in Indigenous health content 3. Student resistance to learning <p>Workforce challenges</p> <ol style="list-style-type: none"> 4. Making sure the most appropriate people are evaluating student learning 5. Staff requiring training to appropriately assess Indigenous health

Appendix 4: Public Health data analysis

Eleven academics involved in Indigenous health education in public health programs were interviewed. The academics were at four different institutions, in four Master of Public Health (MPH) degree prog

Public Health learning goals	Public Health assessment tasks	Public Health assessment goals	Public Health challenges
<ol style="list-style-type: none"> 1. To learn to think more critically using tools such as critical theory 2. To help students develop the capacity to critically reflect on their own culture, ways of understanding things, and positioning as a health practitioner 3. To give students knowledge about the history, culture, contexts, social determinants of health and approaches to understanding healthcare of Indigenous people and communities 4. To guide students on a journey towards cultural safety 5. To motivate students to engage with Indigenous health research and content. 	<p>Reflective assessments (4 institutions)</p> <ul style="list-style-type: none"> ○ Critical reflection on three statements related to class topics (500 words each, worth 30%). ○ Weekly critical reflections on readings ○ Shared ongoing reflective Blog ○ Document their cultural safety journey in a written reflective piece ○ Document their cultural safety journey using any creative medium they like to document their experience <p>Policy critique and/or review (3 institutions)</p> <ul style="list-style-type: none"> ○ Selection of two articles on service delivery and policy which posit differing (but not necessarily directly opposing) viewpoints, and positioning of themselves within policy debate by developing coherent position (25%). ○ Policy submission task ○ Analyse an existing policy, present in class ○ Contribute to a real policy discussion, letter to a local member (send it) ○ Detailed essays - analyse policy, try to improve it ○ Critique of existing program or initiative (policy or practice) <p>Deconstruction exercises (2 institution)</p> <ul style="list-style-type: none"> ○ Deconstruct problematic statements ○ Policy deconstruction <p>Workplace proposal assessment (2 institutions)</p> <ul style="list-style-type: none"> ○ PowerPoint slide development for their workplace (i.e. a presentation on cultural safety). Students do not present but are marked on their slides and presentation plan. ○ Development a project plan to address Aboriginal health in their actual, or hypothetical, workplace (45%) <p>Other written assessments (1 institution)</p> <ul style="list-style-type: none"> ○ Research proposals ○ Literature review ○ Essay assignment with peer review component ○ Essay question in exam touching on topics like colonisation, privilege, and ways of addressing them with strength based approaches (40% of mark) <p>Oral Presentation (1 institution)</p> <ul style="list-style-type: none"> ○ Students pick a cause that they want to campaign about pertaining to Indigenous people, and then, with the support of their teachers, give a talk at the speaker's corner at parliament house <p>Short answer questions (1 institution)</p> <ul style="list-style-type: none"> ○ Short answer questions in exam 	<ol style="list-style-type: none"> 1. To prepare students for future work 2. To promote independent and self-directed engagement with Indigenous Health Content 3. To develop critical self-reflection and habits of lifelong learning 4. To evaluate student attitudes 5. To develop in students skills of critical analysis, and thinking. 	<p>Pedagogical challenges</p> <ol style="list-style-type: none"> 1. The difficulty of teaching students how to critically think, and reflect 2. Engaging students from diverse backgrounds in Indigenous health content 3. To develop a culturally safe environment that does not make students feel victimised, and is conducive to learning and attitudinal change. 4. Introducing complex theories and approaches to healthcare and understanding health that are unfamiliar to students 5. The challenge of assessing student attitudes. <p>Curriculum challenges</p> <ol style="list-style-type: none"> 6. The positioning of Indigenous health within the degree program: Core or elective?

Appendix 5: Social Work data analysis

Four academics involved in Indigenous health education in social work programs were interviewed. The academics were at two institutions, in two Master of Social Work (MSW) degree program.

Social Work learning goals	Social Work assessment tasks	Social Work assessment goals	Social Work Challenges
<ol style="list-style-type: none"> 1. To deepen reflective practice 2. To develop an understanding of Indigenous people’s contemporary contexts, their history, culture and perspectives on healthcare 3. To help students become culturally responsive healthcare practitioners 4. To instil in students a commitment to social justice and respect for persons 	<p>Reflective assessments (2 institutions)</p> <ul style="list-style-type: none"> ○ 2000 word Analytical reflection on a film about the stolen generation (70%) ○ Picture share assessment where students develop a narrative about contemporary Indigeneity using pictures on a PowerPoint, then develop a reflection on their experience of doing this. ○ Reflections on weekly topics, 5 *200 words (10%), <p>Policy critique and/or review (1 institution)</p> <ul style="list-style-type: none"> ○ 2000 word Policy analysis assessment in which students write about a current policy in the context of one of the episodes of the television series <i>The First Australians</i>. <p>Other written assessments (1 institution)</p> <ul style="list-style-type: none"> ○ Take home exam, narrative interview analysis (20%) 	<ol style="list-style-type: none"> 1. To break down stereotypes 2. To encourage deeper understanding of Indigenous health content 3. To develop in students analytical skills to understand how historical and contemporary contexts impact Aboriginal communities 	<p>Pedagogical challenges</p> <ol style="list-style-type: none"> 1. Engaging students from diverse backgrounds in Indigenous health content 2. Making sure that there is an Indigenous lens on teaching and learning content <p>Pedagogical/curriculum challenges</p> <ol style="list-style-type: none"> 3. Staff and student resistance to Indigenous health content <p>Curriculum challenges</p> <ol style="list-style-type: none"> 4. Ensuring that assessment practices are respectful and are not intrusive

Appendix 6: Dentistry data analysis

Three academics involved in Indigenous health education in dentistry programs were interviewed. The academics were at two institutions, and were involved in a Doctor of Dental Surgery (DDS) and Bachelor of Oral Health (BOH) program respectively.

Dentistry learning goals	Dentistry assessment tasks	Dentistry assessment goals	Dentistry challenges
<ol style="list-style-type: none"> 1. To develop in students an understanding of the culture, history and social determinants of health of Indigenous people 2. To dispel misconceptions about Indigenous people and history held by students by exploring the social determinants of health 3. To develop students ability to provide patient-centred care – a skill involving two way communication with patients 	<p>Other written assessments (2 institution)</p> <ul style="list-style-type: none"> ○ Short essays on the oral health of Indigenous Australians in an exam ○ Students choose a topic of their choice that is relevant to the oral health of Indigenous Australians and complete a literature review on it ○ Issue/explanation/solution document <p>Practice based assessments (1 institution)</p> <ul style="list-style-type: none"> ○ OSCE with an Indigenous patient <p>Participation assessment (1 institution)</p> <ul style="list-style-type: none"> ○ Completion of the Aboriginal Cultural Orientation Module (10%) 	<ol style="list-style-type: none"> 1. To allow students to explore their areas of interest in Indigenous health 2. To incentivise students with different learning styles and levels to engage in Indigenous health content 3. To demonstrate knowledge about the concepts they have been taught 4. To assess student attitudes in a practice based context 	<p>Pedagogical challenges</p> <ol style="list-style-type: none"> 1. Student resistance to learning 2. Engaging students from diverse backgrounds in Indigenous health content <p>Curriculum challenges</p> <ol style="list-style-type: none"> 3. Ensuring that Indigenous health content is perceived as an important part of the curriculum 4. Positioning of Indigenous health content: discrete or embedded?

Appendix 7: Physiotherapy data analysis

Two academics involved in Indigenous health education in a Doctor of Physiotherapy (DP) program at one institution were interviewed.

Physiotherapy learning Goals	Physiotherapy assessment tasks	Physiotherapy assessment goals	Physiotherapy challenges
<ol style="list-style-type: none"> 1. To help students develop the capacity to critically reflect on their own culture, ways of understanding things, and positioning as a health practitioner 2. To teach students to engage with Indigenous communities in an informed and respectful way 3. To develop in students an ability to use historical evidence to inform debate and discussion 	<p>Scaffolded longitudinal assessment comprising different assessment types (1 institution)*</p> <ul style="list-style-type: none"> ○ Year 1: Develop annotated bibliographies about a chosen determinant of health, relating these to the community group they choose to work with <li style="text-align: center;">↓ ○ Year 1: Group project for all students who have selected to work with a particular community. Students create a wiki about their community that describes the social, cultural, economic, and physical determinants of health in their community. They then present this to the rest of their cohort. <li style="text-align: center;">↓ ○ Year 2: Develop a plan for a health needs assessment in their community and then carry out that assessment in their community (involves them working directly with the community to determine felt needs, and depending on their plan, carrying out interviews, focus groups, etc.). <li style="text-align: center;">↓ ○ Year 2: Group project where students bring together their health needs assessments to form a report that they present to the community. <li style="text-align: center;">↓ ○ Year 3: On the basis of discussing the health needs assessments with members of their community, students as a group plan a health promotion activity, which fits a particular framework provided by the subject coordinators. The plan has to be small and containable. <li style="text-align: center;">↓ ○ Year 3: Students carry out the health promotion activity. Develop a large report on it, and present the report as a group to their cohort at the end of semester <p>*This is only an Indigenous health assessment if students choose to work with an Indigenous community.</p>	<ol style="list-style-type: none"> 1. To build on a core group of skills over the degree program such as research and practice based skills 2. For students to independently construct their Indigenous health learning program by developing and implement a long term project 	<p>Pedagogical challenges</p> <ol style="list-style-type: none"> 1. Preparing students' expectations about, and capacities for, engaging with Indigenous communities <p>Curriculum challenges</p> <ol style="list-style-type: none"> 2. Ensuring that the curriculum is aligned so that students are assessed on Indigenous health intended learning outcomes <p>Curriculum/ workforce challenges</p> <ol style="list-style-type: none"> 3. Ensuring that Indigenous health content is part of the curriculum and is appropriately staffed and resourced

Appendix 8: Speech Pathology data analysis

One academic involved in Indigenous health education in a Master of Speech Therapy Language Practice (MSLT) program was interviewed.

Speech Pathology learning goals	Speech Pathology assessment tasks	Speech Pathology assessment goals	Speech Pathology Challenges
<ol style="list-style-type: none"> 1. Developing in students an appreciation of how the social determinants of health effect health outcomes 2. Relationship building skills with Indigenous people, communities, and health providers. 	<p>Reflective assessments (1 institution)</p> <ul style="list-style-type: none"> ○ Reflective essay on the role of the treaty of Waitangi in their clinical practice (10%), soon to change to (20%). 	<ol style="list-style-type: none"> 1. Preparing students to enter the workforce 2. Allowing students to reflect on and construct knowledge about what policies procedures and legislation pertaining to Indigenous people mean for their future practice 	<p>Pedagogical challenges</p> <ol style="list-style-type: none"> 1. Ensuring students understand the intended aims of assessment tasks <p>Curriculum challenges</p> <ol style="list-style-type: none"> 2. Integrating Indigenous health content in small degree programs <p>Workforce challenges</p> <ol style="list-style-type: none"> 3. Acquiring the resources, time and community engagement required to implement ideal assessment practices.

Appendix 9: Psychiatry data analysis

One academic involved in Indigenous health education in a Master of Psychiatry (MMed(Psychiatry)) program was interviewed.

Psychiatry learning goals	Psychiatry assessment tasks	Psychiatry assessment Goals	Psychiatry Challenges
<ol style="list-style-type: none"> 1. To develop in students an awareness of cultural differences and an ability to communicate in a culturally appropriate way 2. To instil a flexibility to engage with Indigenous people in difficult or unusual circumstances 	<p>Other written assessments (1 institution)*</p> <ul style="list-style-type: none"> ○ 1000 word essay on mental health in older Indigenous Australians (exact nature of the assessment up to students, and could involve a literature review, a case study, a research proposal, and so on). <p>Oral Presentation (1 institution)*</p> <ul style="list-style-type: none"> ○ 500 word essay and a 5 minute oral presentation on mental health in older Indigenous Australians (only taken if students do not select the 1000 word essay above). <p>Multiple choice questions (1 institution)</p> <ul style="list-style-type: none"> ○ Depending on the year, 2-3 multiple choice questions about Indigenous health in an exam <p>*These are only Indigenous health assessments if students choose Indigenous health as a topic</p>	<ol style="list-style-type: none"> 1. To allow students to explore their areas of interest in Indigenous health 	<p>Curriculum challenges</p> <ol style="list-style-type: none"> 1. Ensuring that students are assessed on Indigenous health learning outcomes 2. Giving students access Indigenous patients as part of their learning

Appendix 10: Neuroscience data analysis

One academic, with an Indigenous health focus, involved in educating Neuroscience Master's and PhD students was interviewed.

Neuroscience learning goals	Neuroscience assessment tasks	Neuroscience assessment goals	Neuroscience challenges
<ol style="list-style-type: none"> 1. To educate students in Indigenous ways of viewing the world, in particular health and well-being to facilitate better relationships with Indigenous people in practice. 2. To develop in students an openness to the diversity of Indigenous people and cultures, and lessen any expectations about what Indigeneity is 3. Relationship building skills with health providers 	N/A	<ol style="list-style-type: none"> 1. To demonstrate students' capability to work with Indigenous communities in an appropriate way 	<p>Pedagogical challenges</p> <ol style="list-style-type: none"> 1. Incorporating Indigenous perspectives and methodologies in assessment and teaching and learning practices 2. Teaching critical thinking, research and communication skills