

Open educational practices in a Cultural Capability unit: learning at the cultural interface

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Abstract

Purpose – The authors respond to the special edition call for papers which explore the intersection between equity pedagogy and open educational practices (OEPs). The purpose of this study is to address the question “In what ways are educators ensuring equity in open educational practices (OEP)?” by investigating the use of OEPs in a first-year Cultural Capability unit at an Australian University. The Cultural Capability unit and this study are underpinned by concepts of border crossings (Aikenhead, 1996) across the cultural interface (Nakata, 2007) enabled by modelling and practicing collaborative power relations (Cummins, 2000).

Design/methodology/approach – This study uses a qualitative content analysis method to analyse three textual data sets from students (interviews, writing samples and unit evaluation comments), for insights into students’ learning experiences and outcomes related to OEPs used in the unit.

Findings – The OEPs used in the unit support working across multiple knowledge systems, disciplines and conceptual boundaries. The unit’s OEPs facilitate border crossings amongst multiple subcultures and share power to induce participation and give students language to discuss how they might cross borders in the wider cultural interfaces they are learning and working in.

Originality/value – This study extends the theorising of OEP to introduce cultural border crossings and collaborative relations of power as examples of values-centred OEPs in the service of emancipatory learning

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Ethics information: The student interview data was collected as part of the Open Textbooks and Social Justice National Scoping project which was approved by Deakin Human Research Ethics group in June 2020 (HAE-20-040.) The student writing samples and anonymous student evaluations comments were collected with permission from Charles Darwin University Human Research Ethics in November, 2020 (CDU HREC H20097).



in multi-cultural contexts. This study extends the practical applications of OEPs to making space for Indigenous and global students' perspectives as valuable in the development of cultural capabilities.

Keywords Cultural studies, Indigenous studies, Open educational practices, Multilingual, Equity pedagogy

Paper type Research paper

Introduction

Open educational practices (OEPs) are often framed in terms of collaboration, sharing and empowerment; important ideas for equity-focussed educators. OEPs are described as multiple entry points to learning (Cronin and Maclaren, 2018), characterised by “collaborative practice in which resources (and texts) are shared by making them openly available, and pedagogical practices are employed which rely on social interaction, knowledge creation, peer-learning, and shared learning practices” (Ehlers, 2011, p. 6).

While the OEP has recently been examined through social justice theory to more forcefully argue for the equitable education of traditionally under-represented or marginalised students (Bali *et al.*, 2020; Lambert, 2018), there have been few studies on how the OEP works for specific cohorts such as Indigenous students, international students and those learning in additional languages and between multiple cultures. There has been little literature about how the collaboration and sharing of OEPs might address particular inequalities of learning such as “the achievement gap” between white learners and those from black and other ethnic backgrounds (Pilgrim, 2022). The exceptions are Nusbaums' (2020) study into the culturally inclusive potential of students' engagement with open textbooks and Funk's study (2020) into the appropriation of online platforms and knowledge systems by Indigenous students and staff across a range of educational and workplace contexts.

Our interest in this paper is to consider the intersections between Indigenous knowledge (as a particular kind of equity pedagogy) and OEPs. We aim to broaden the understanding of how OEPs can be operationalised in the design and delivery of higher education unit by integrating principles of multi-cultural learning developed from the literature of Indigenous knowledge and pedagogy. For example, the OEP as multiple ways into learning can model and make space for the recognition and representation of different members of the peer community (Cronin and Maclaren, 2018) and is compatible with “both-ways” learning to describe productive intercultural educational practices (Yunupingu, 1989).

This paper extends a prior research inquiry into open-access textbooks and learning materials (Lambert and Fadel, 2022), to address how the OEP can facilitate more equitable learning in a cultural studies unit. The Cultural Capability unit is a mandatory first-year unit for students across different disciplines which was redesigned by Funk to integrate both OEPs and Indigenous knowledges. Effort was made to provide practical applications of cultural competencies to well-publicised issues: anti-Asian covid-related discrimination and Anti-Aboriginal systemic racism in Australia. The open pedagogy developed under the leadership of local Indigenist research is designed to offer Indigenous and non-Indigenous students the knowledge, skills and capacities to work in culturally contested spaces they inhabit and will inherit (Nakata, 2007) See Appendix 3 for the reading list.

The authors are white, English-speaking settler educators with commitments to Indigenous and multi-cultural allyship through their teaching and research.

Funk teaches at a regional, remotely placed university in northern Australia which supports both higher education and trades sectors. The university has a long reputation of serving, partnering and researching with Indigenous communities across the region.

As the Indigenous population in the area is 30.3% (while the rest of Australia is 3.3%), the significance of a relationship to the diverse Indigenous communities in the region is central to the university's strategy.

As the following sections show, our work is framed by pedagogy concepts of "border crossings" at the "Cultural interface" – concepts useful for both the teaching and research of OEPs in a broad range of multi-cultural contexts which dominate contemporary higher education around the world. Through this study, we highlight conceptual similarities across multilingual and Indigenous educational research and explain OEP's potential for student emancipation from experiencing or reproducing racial, linguistic and cultural marginalisation – ongoing issues in higher education (Zamora *et al.*, 2021).

Literature review

Border crossings at the cultural interface

Western education systems tend to require non-Western students to make the effort to understand their paradigm of knowledge management without also asking what could be learned from the students' cultures (Archibald, 2006). This is an equity problem because students of colour are already making extra effort to fit in to wider society – educational institutions need not add to their burden. Educational justice scholars such as Devlin (2013) have noted it is equally up to institutions and educators to reciprocate the effort of cultural translation, just as researchers of decoloniality such as Nehrez' (1991) assert that the coloniser must undertake responsibility for dismantling oppressive institutional structures.

As members of these institutions, we work from the perspective that we are bound to keep evolving to meet the needs of learners by dismantling oppressive colonising structures and replacing them with more equitable approaches to work in culturally contested spaces. One way to progress a more equitable teaching and learning environment is to adopt an approach of learning at the cultural interface (Nakata, 2007) which invites all students to enhance their knowledge by becoming more comfortable to learn in the sometimes-uncomfortable spaces where different cultures and subcultures collide.

Nakata's concept of the cultural interface as an overlapping space where multiple cultures intersect was developed as part of his work to define how Indigenous knowledge can be recognised, maintained and extended. It also builds on the lived experience of Indigenous people who are skilled at living across different cultural worlds. For example, both-ways learning (Yunupingu, 1989) frames Yolŋu (Indigenous) and Western knowledge systems as complementary; the blending of Western and Indigenous knowledge (including the diversity that exists in both). Similarly, Senior Yolŋu women have described interactions of different waters as analogous to the meeting of different knowledge systems (Marika, 1999; Guthadjaka, 2010) and argue that knowledge can be gained and combined from diverse cultural contexts and countries to meet learning needs. This is beneficial for all students.

But how can learning at the cultural interface work in practice? Because knowledge is not fixed but contested within and across knowledge systems, Nakata (2007) suggests that we need to empower students ("create agency") to develop "authentic accounts of Indigenous learners and knowledge in education" (Nakata, 2007) which also shows respect for the contested spaces and tensions between knowledge systems. This would require us to embed Indigenous knowledge perspectives in our teaching and model how to recognise different and even conflicting cultural perspectives. In doing so, the contributions of Indigenous knowledge and communities are more fully represented, helping to counteract shallow "inclusion" in Western education and enabling space for Indigenous knowledge to claim

academic territory. This can support efforts to dismantle coercive systems that “deliver” learning in one direction as if students were blank canvases for knowledge.

The Cultural Capability unit’s learning outcomes and assessments and our research investigation are also underpinned by the concept of *border crossing* (Aikenhead, 1996) as a strategy and a way of traversing the *cultural interface* (Nakata, 2007) for all students.

Border crossings are a useful pedagogical concept to frame moves that both learners and educators need to make to navigate between different, academic/discipline or organisational cultures which share different language, norms and values (Phelan, 1991).

Border crossings have been used within the field of science education (Aikenhead, 1996) to explain how students move between potentially alienating disciplinary cultures and how educators and curriculum can support them. Helping students consciously make a border crossing can address the shifts between different paradigms, subcultures and identities they hold. Nakata’s writings also discuss the need to embrace cognitive dissonance when respecting tensions between knowledge systems, aligning with border crossing concepts.

Border crossings are context specific to each learning situation and student’s subcultures. For example, students might move between a corporate workplace culture that values individualistic competition and an experience of collective Indigenous community philosophy.

We have adopted Phelan’s (1991, p. 228) typology of border crossing or transitions which students can make:

- smooth transitions between congruent worlds;
- managed transitions (facilitated by the teacher) between different worlds;
- hazardous/risky transitions between highly diverse worlds (“culture-clash”); and
- resistant/failed transitions between highly discordant worlds.

Open educational practices incorporating collaborative power relations

To create an environment conducive to border crossings at the Cultural interface, the OEP in the Cultural Competence unit was designed to model and allow students to practice *collaborative relations of power* (CRP) (Cummins, 1996, 2000) which is a way to address power imbalances that exist between teachers and learners and between learners of different backgrounds in multi-cultural teaching contexts.

Cummins articulated that both *coercive* and *collaborative* relations of power are possible between educators and learners in bicultural and bilingual educational contexts, and each have important cognitive implications (Cummins, 1996, 2000). Assuming that learners can move between two languages and cultures is honouring learners’ capacity and leads to more CRP (Cummins, 2000). By contrast, abstraction, disconnected delivery of information and dictation, engages a coercive relation of power and meets students at a lower cognitive level of learning. We suggest that refusing to acknowledge students’ cultural backgrounds and capability as strength and assuming they have lesser skills than native speakers (e.g. peers and/or the teacher) also reproduce coercive power relations within learning environments.

In this study, we consider CRP as a critical and specific subset of this unit’s OEPs which provides a safe learning space for students to develop skills at the cultural interface, such as identifying the need for and making border crossings. When developing the thematic codes for data analysis, we did not code for collaborative/social learning (echoing current more general OEP definitions) but instead coded specifically for CRP.

Research method and questions

The Cultural Capability unit is run predominantly online with face-to-face options, with approximately 500–1,000 students from diverse backgrounds, including those that identify as Indigenous from Australian and neighbouring Asia-Pacific nations. When the College of Indigenous Futures, Education and Arts at the university took ownership of the unit, content and pedagogy were renovated to centre senior Yolŋu colleagues' direction and conceptual advice on what cultural capability was from an Indigenist standpoint. As white Australians, the unit staff undertook the academic administration and delivery of the unit. This was negotiated with senior Yolŋu staff over a week-long workshop defining the best conceptual framework for cultural capability. Given the transdisciplinary nature of the university student cohort in the unit, the unit staff also felt that to contextualise these concepts for some students not accustomed to them, the unit would provide students with opportunities for applying discipline-specific and professional codes of respectful workplace conduct for real ties to students' futures.

Unit staff felt the open sharing of this practice by Indigenous staff could be reciprocated and complemented by socialising students to the principles of OEPs. Many of the principles that the Indigenous staff directed for the unit informed the more conventional academic concepts and content, CRP, understanding cultural boundaries and border crossings, acting with equity, understanding bias and positionality and self-awareness. Using these concepts in class and online developed a hybrid learning community engaging in open-access readings, open peer review of draft assessments and open polling and debate each week and concluding with the option of open textbook publishing of students' final assignment (cultural capability case study). The co-created open textbook resource can be viewed at: <https://cduetbooks.pressbooks.pub/cuc107/>.

The overarching research question for the study is: How can open educational practices build capacity for making border crossings at the cultural interface in first-year university students?

To address this question, we used an established qualitative content analysis method to analyse students' claims made about their learning. Qualitative content analysis (Mayring, 2004) places interpretation of the text and use of common thematic categories in the centre of analysis which is undertaken in a cyclical process of feedback and refinement. This leads to centring student contributions as the main items of analysis.

We identified students' accounts of their learning experiences that related to our literature's concepts of border crossings, cultural capability and OEP from three different data sources:

- (1) students' writings reflecting on what they learned through the Cultural Capability unit, including power relations and border crossings (permission for use in study sought and approved; $N = 109$ students over four semesters);
- (2) students' anonymous evaluation of the unit – these texts often compared the pros and cons of this unit with other units ($N = 11\%–35\%$ response rate over three semesters); and
- (3) interviews undertaken with students relating to the textbooks and readings for all their subjects studied and the cultural recognition or representation of diversity in those readings ($N = 10$).

While demographic features of the research participants were not collected, students' gender and racial background were generally identified in the contents of the reflective writings and anonymous evaluations. The data is representative of the class – a mix of female and male, non-Indigenous and Indigenous students from both Australia and overseas.

We refined our research questions to be:

RQ1. What kinds of border crossings and cultural capabilities do students claim for themselves as an outcome of this unit?

RQ2. Which kinds of open educational practices and learning experiences are most commonly mentioned in relation to students' accounts of making border crossings?

To answer *RQ1* and *RQ2*, we labelled the texts in Nvivo using a coding schema centred on our border crossings and OEP definitions. [Appendix 1](#) contains tables with the final coding schema, including definitions for each key term.

Through iterative cycles of analysis and coding, we identified common themes within the border crossings and OEP descriptions made by students. Because the students made so many spontaneous comparisons between the Cultural Capability unit and other units where they felt less inclusion and less care about their cultural background, we needed to also code for non-OEP themes. We used NVivo to generate data summaries of the number of text fragments coded for each theme to reduce bias in judgements about what themes were more or less common.

To answer *RQ2*, we also used Nvivo's "matrix query" function to tally up and identify which of the OEP or non-OEP features of the unit were most commonly mentioned by students in their accounts of border crossings. Matrix queries essentially allowed us to filter on more than one theme, that is, OEP and managed border crossings, OEP and resistant border crossings.

Findings

Our analysis of the students' text fragments found that students described making border crossings of different types, across different contexts which led to the development of different types or levels of cultural capabilities. [Table 1](#) provides a summary, and each of the major themes is discussed in the following section.

Border crossing themes	No. of text fragments
Border crossing types	Total: 50
Smooth	13
Managed	16
Resistant	13
Self-managed	8
Border crossing contexts	Total: 100
Academic	33
Professional	27
Personal	28
Societal	12
Types or levels of cultural capability gains	Total: 113
Creates accounts of Indigenous knowledge	13
Increasing awareness	28
Actions	14
Setting intentions	23
Tensions between systems	35

Table 1.
Themes within
accounts of students'
cultural border
crossings: different
border crossing
types, contexts and
cultural capability
gains

Teacher managed and self-managed border crossings

Our findings endorsed Phelan's typology of border crossings, with students discussing making managed ($N = 16$), smooth ($N = 13$) and resistant ($N = 13$) border crossings. This example is a typical account of a managed border crossing:

(the unit has) [...] helped form awareness around my own cultural self and that of others around me inside and outside my cultural border. The learning has urged me to listen to my own bias when analysing specific cultural topics.

There were numerous accounts where students talked about the teacher's facilitation of their border crossings in class and forum contexts, such as: "How the lecturers engaged with the students was one aspect I really enjoyed and it allowed me to feel like I could ask questions about anything."

Other border crossing descriptions also described being supported by the teacher's design of the curriculum and assessment which included links to academic language and learning support staff outside the unit:

Every class students interacted well, facilitated by the lecturers – We were encouraged to give feedback on others work and post our own work for others to give feedback on' and 'I got encouraged through the question-answer sessions in classes, teaming with peers for assignments, and support services by the university [...]. I started to adapt to the cultural changes and crossed the cultural borders.

While Phelan's original "managed border crossings" developed as a teacher/person-focussed concept of what happens in face-to-face high-school classes, our results extend the definition of "managed border crossing" to include the intentional design of blended learning curriculum and assessment for adult learners.

Our analysis also found students describing a new type of border-crossing which we labelled "self-managed" ($N = 8$). Our data suggests that some students made successful border crossings without teacher support and sometimes in spite of negative feedback.

For example, this international student discussing a unit studied before the Cultural Capability unit made connections between her cultural knowledge and worlds – which was ignored by the teacher:

One of my units is Indigenous health, it is talking about Indigenous traditional herb and some treatments. In the class I said, oh in my culture, we also have similar things, but my teacher didn't reply or respond to what I said, she just ignores and skip to other contents.

Border crossings facilitating different types or levels of cultural capability across personal and professional contexts

We also found that border crossing is a concept relevant to a wide range of contexts beyond Indigenous/non-Indigenous knowledges modelled in the unit. Students found border crossings helpful to develop cultural capability across academic ($N = 33$), personal ($N = 28$) and professional ($N = 27$) contexts.

The following is a typical quote from a student discussing embracing new ways of looking at the world:

This Unit has impacted the way I see my studies and profession in future by the way it has evoked a part in me that will always try to see things from different angles not just the one I consider normal.

We were interested to find that students discussed gaining different types or levels of cultural capabilities, on a spectrum from thinking differently to enacting their cultural capability through doing/saying things differently in university, professional and personal/societal contexts.

As the following example shows, an Aboriginal student talked about their learning in terms of becoming more active, *setting intention* for their future work in contested spaces and *sharing accounts of actions*:

I feel confident now to participate more actively in the future, not only in my further studies but also at my workplace. (What I've learnt) . . . will continue to help me broaden the knowledge and history of our people and will give me the tools to be able to do it confidently and continue to have a safe space for my Aboriginal students. I am more curious about people and whether they find themselves in a safe environment.

Just over a quarter of the students (28 of 113 or 28%) discussed the Cultural Capability unit in relatively passive terms of *raising awareness* of issues such as bias, privilege, power and difference, which is, nevertheless, foundational and crucial for further cultural capability gain. The level of impact described by other students was more active. For example, 13 text fragments provided an account of Indigenous knowledge ("making space for Indigenous knowledge systems"), and 23 text fragments described *setting intention* for future actions. Another 14 described where the learning outcomes were of highest impact, already inducing specific actions for improved cultural capability – often in their workplace and/or personal life.

For example:

A job came up for a student support officer at a private boarding school, supporting Aboriginal and Torres Strait Islander (sic) girls on scholarships [. . .] I felt I could put my new knowledge to work in an area where an equitable learning environment was not entirely evident. [. . .] Although I have only been in the job two weeks, I have discovered an area in which I can be part of the change needed.

In all, 35 text fragments (31%) were labelled thematically as acknowledging "tensions between systems", describing engaging in contested spaces in the unit. This was not necessarily negative – the text fragments suggest students were learning to navigate the cultural interface and found this cognitively demanding. Cultural and emancipatory work is hard work. For example:

I found it very difficult to keep up with the modern learning model due to different instructional methods and concepts, but at the time I recognised the oppressive influence and disparities between Western universities and universities in my home country, and I was astonished of the depth of this topic.

Modelling and practicing collaborative relations of power important as open educational practices

Within the students accounts of their learning experiences, students mentioned different types of learning experiences which were categorised as OEPs ($N = 113$) or non-OEPs ($N = 45$).

Table 2 shows that CRP was the largest theme ($n = 44$ in total) with accounts of CRP split fairly evenly between those modelled by the teacher ($n = 21$) and those practiced by the students ($n = 23$). This suggests that both modelling and providing students with opportunities to practice CRP were particularly important to the students and their accounts of learning. For example:

I believe that this (border crossing) has been achieved and can successfully be achieved in other border crossing situations, due to the open conversation around different viewpoints in each class, the platforms that allow the opportunity to converse with other students and teachers to discuss different matters and the support systems put in place for students both new and experienced to assist their adjustment.

However, some experiences of CRP were negative – students often struggled with the new concepts and while many students eventually valued what they had learned, some resisted the new ideas and additional cognitive demand.

Students’ accounts also often focussed on the learning processes ($n = 22$), such as cycles of reflection and action and relationships in the discussion forums with other students and their ideas. Comments specific to the diverse representation of cultures ($n = 20$) were mostly made in relation to the set of open readings. More general comments about open readings and flexibility of choice were noted but lesser themes. Exclusionary dynamics was the dominant theme of students’ non-OEP accounts, where teachers or students did not recognise or respond to students’ cultural contributions.

Finally, to address RQ2, we queried texts where students explicitly made connections between the unit’s OEPs and their border crossings and cultural capability gains.

The most common type of OEP–border crossing relationship found was CRP-enabling border crossings in academic ($N = 8$) and professional contexts ($N = 8$).

For example, the following student describes the way instructors were able to build trust and collaboration and model and help students navigate a pathway between their various worlds (CRP related to managed border crossing):

Through the careful crafting of content, [...] by building a unit based on a sense of trust, you have created an academic environment which challenged me to rediscover my voice and, [...] to begin to use it.

We also found that students’ accounts of CRP were related mostly to *setting intentions*, that is, plans for actions ($N = 8$) and less to do with the lower impact cultural capability gains such as *increasing awareness* of cultural capability.

The more active types of cultural capability gains (*actions, setting intentions and tensions between systems*) were mostly related to students practicing CRP ($N = 5$ or 6) and less with modelling CRP by the teacher ($N = 1$ or 3). Students’ accounts of the teacher modelling CRP were related to outcomes mostly in the academic sphere ($N = 5$), whereas accounts of students practicing CPR were related to impacts across both the academic ($n = 8$) and professional spheres ($n = 5$). [Appendix 2](#) shows the full table of OEP–border crossing relationships results.

Students’ texts labelled as having a “learning process focus” (reflection and action and discussion forum relationships) had the strongest relationship with smooth and managed border crossings and learning outcomes that impacted students personally.

Table 2.
Major open educational practice and non-open educational practice themes referred to in the students’ texts as related to their learning outcomes

OEP and non-OEP themes	No. of text fragments
OEP	Total: 113
Modelling CRP	21
Practicing CRP	23
Learning process focus	22
Cultural representation	20
Open readings	15
Flexibility of choice	12
non-OEP	Total: 45
Exclusionary dynamics	27
Neglects background	11
Coercive power	7

Interestingly, *learning process-focussed* accounts did not mention concrete actions (as practicing CRP did) but described both *setting intentions* and *tensions between systems*.

These are significant findings that suggest that the OEP that includes a focus on learning processes (reflection and relationships) as well as the modelling and providing opportunities for practice are useful together. While the data set is not large, the findings suggest that the focus on learning processes (including self-reflection) might help build student's capacity to recognise cultural tensions and that practicing CRP helps students move from intention to action in applying new capabilities to their studies and lives. This would be a fruitful area for future research.

In terms of the non-OEP themes, exclusionary dynamics was not related to accounts of border crossings but was related to accounts of tensions between systems. Similarly, while "coercive power" was the least common non-OEP theme to the text accounts overall, it was linked to accounts of tensions between systems ($n = 5$) and practicing CRP ($n = 6$) along with students' accounts of exclusionary dynamics ($n = 6$). This suggests that coercive power and exclusionary dynamics in the students' accounts were linked to both positive learning outcome (students' ability to acknowledge tensions between knowledge systems) and negative learning experiences. Students' accounts in these texts often related to exclusionary experiences in previous/other units. These experiences might make students more open to the CRP practiced in the Cultural Competence unit and more open to acknowledging tensions between different cultural systems. This would also be an area for future research.

Some students described resistant border crossings as unwanted learning related to tensions between different disciplines and their knowledge systems. For example, some white male students reacted to being identified as privileged in the context of colonisation or lack of workplace gender parity by criticising the subject as irrelevant or biased. One appropriated the language of the course ("lacks inclusiveness") as a rationale for *not making* a crossing into the new cultural zone, but instead holding firm to their original views: "Sorry I think this unit should be scrapped from the midwifery degree. I can think of so many more relevant topics to learn."

Practical implications: open educational practices at the cultural interface beyond compulsory units

This study has shown that using OEP at the cultural interface supports working across multiple knowledge systems, disciplines and conceptual boundaries. It facilitates border crossings amongst multiple subcultures and identities, shares power to induce participation and gives students language to discuss how they might cross borders in the wider cultural interfaces they are learning and working in.

While this study is limited to one unit within the Australian Higher Education context, the implications are the use of border crossings and OEP are worthy of further investigation in a wide range of units and disciplines – not just those teaching Cultural Competence. While additional research in other global and curricular contexts would be useful to test applicability, we suggest that border crossings and OEP could be particularly relevant across all disciplines where institutions are trying to develop cultural competence in all students as a core graduate attribute. We suggest that the inclusion of border crossing might also have particular relevance for curriculum of interdisciplinary units and courses to help student navigate different discipline cultures at university and as a graduate.

While Nakata says the space of cultural interface tensions can be constructive, we also acknowledge that the data suggests that students are at different levels of preparedness to participate in the cultural interface. Teaching staff may also have their own levels of preparedness. Another limitation of this study and area for future research relates to the

skills of the staff involved in the development and teaching of the unit. If staff had not developed their own cultural capability skills and a contextualised understandings of the power relations in the educational setting, then different results may be obtained.

Therefore, curriculum implications are that one compulsory unit may not be sufficient, and there needs to be multiple ways to develop cultural capability across a degree program, so students do not graduate with restricted views of what is relevant for their life and their profession. It might be better to embed diversified readings lists and critical, collaborative reading of difference into formative and summative assessments throughout all years of a degree course, so students have an opportunity to reflect on their accumulated skills, their cultural bias and ways of managing multiple cultures and societal needs for cultural knowledge each year.

Theoretical implications: values centred open educational practices from the cultural interface

CRP practiced by students led to more active expressions of learning and highlights the value in OEP relating to development of student agency. In our study, participating at the cultural interface led to more capability in academic and professional spheres than reading about or seeing CRP being modelled. However, the elements of OEP relating to focussing on learning processes (rather than content) seem to be required to create a safe space for learning and enabled students to set intentions for culturally capable actions. This suggests the possibility that OEP within a unit may need distinct phases focussing on learning processes and CRP that are sequential or at least complementary.

Therefore, CRP adds to the OEP pedagogy narrative by providing more nuanced definitions of collaboration that address power through the acknowledgement of students' backgrounds, experiences and identities. CRP as a subset of OEP can be defined as: expecting and assuming capability from students to work and learn in contested spaces; sharing power in learning environments to generate individual and group agency; and making space for students' experiences. We suggest that graduating with CRP capability prepares students for working and living in the many cultural interfaces they will encounter.

Furthermore, if learning contexts are collaborative and not coercive, then there is also the likelihood that they are emancipatory (Freire, 1970) and help students generate more individual and group agency. The student accounts often suggest emancipatory learning experiences are powerful for marginalised groups and also illuminate new ways of being and, therefore, can also be emancipatory for dominant groups.

Our findings echo recent OEP literature (Zamora *et al.*, 2021) highlighting how intercultural education can address the "the most pressing contemporary forms of exploitation" such as racial and cultural marginalisation in education systems. For example, while higher education institutions welcome both international and Indigenous students to universities, forms of exclusion within higher education involve continued under-representation of Indigenous and global knowledge at the level of classrooms and pedagogy.

Like the recent Zamora *et al.* study (2021), the Cultural Competence unit was designed to inhabit the cultural interface, practice a representationally just and collaborative dynamic and centre particular values, not just particular content.

This is not to say that learning materials and texts were not important – these were judiciously selected to model integrating different cultural perspectives. Using a student co-created textbook and formative assessment/peer review forum, the learning materials also modelled and enacted CRP between teachers and learners – again reflecting the centring of values. This practice also provided published accounts of Indigenous experiences, respecting the tensions amongst the many knowledge systems they inhabit.

Centring values is also different to centring students. In line with recent critiques of student-centred learning, centring students can lead to unsustainable educator care efforts and provide already privileged students with more focus (Funk, 2021). While universities must necessarily provide wide-ranging supports for students to succeed no matter their circumstances, at the level of pedagogy, we argue what is needed is centring values of justice and student capability – caring for students’ backgrounds and diversity of experience as they are expressed in their ideas.

Conclusion

Returning to the main research question, this study has found that a compulsory first-year unit-built students’ capacity for making border crossings at the cultural interface. These outcomes stemmed from intentionally designed OEP that focussed on the process of learning and CRP. The OEP was centred on valuing two-way learning across multiple disciplinary and cultural worlds. This provided students with cognitively challenging experiences linked to the development of cultural capability impacting students’ academic and professional lives. Although the unit was designed with Indigenous two-way learning theories and knowledge as core resources and ideas, the concept of border crossings was found useful by students to navigate across multiple disciplinary, professional and personal contexts. We suggest that the OEP designed at the cultural interface can enable not only equity but also emancipation from limiting ideas around cultural dominance internalised by students from both Indigenous, non-Indigenous and international backgrounds.

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Further reading

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Appendix 1

Themes: cultural capability	Definition, source
<i>Border crossings types</i> Smooth, Managed and Resistant	Ways students experience the transition between two or more different cultural and/or professional worlds (Phelan, 1991)
Self-managed	Phelan’s original definitions assume the teacher is modelling and supporting border crossings to some degree Our data suggests that some students made successful border crossings without teacher support and sometimes in spite of negative feedback
<i>Border crossing contexts</i> Academic, professional, personal and societal	These themes were developed from the data to accommodate what students said about the scope or areas of students’ lives impacted by developing Cultural Capabilities skills
<i>Types or levels of cultural capability gains</i> Increased awareness	Low-impact consideration but not adoption of new ideas (from the data)
Tensions between systems	Acknowledgement of differing value and knowledge systems making learning more challenging (Nakata, 2007)
Setting intentions	Planning on doing things differently (Nakata, 2007)
Taking actions	Describing culturally capable actions Pushing through challenges of different knowledges to adapt practice (Nakata, 2007)

Table A1.
Border crossing and cultural capability coding schema

Themes: learning experiences	Definition, source
<i>OEP</i> Collaborative relations of power (CRP)	Co-design and shared power over learning processes (Cummins)
Modelling CRP	Teaching staff or students showing others (Cummins)
Practicing CRP	Actively cooperating and sharing power (Cummins)
Learning process focus	Centring learning rather than content transfer (Nakata, OEP literature)
Cultural representation	Cultural knowledge is embedded in the learning design, not only included ad hoc (Nakata, OEP literature)
Open readings	Freely accessible, either through library subscriptions shared with students or via open access (OEP literature)
Flexibility of choice	Options for engagement in learning; a/synchronous, hyflex, hybrid and blended, for example (OEP literature)
<i>Non-OEP</i> Exclusionary dynamics	Knowledge and power withheld from students in learning processes (from the data, Nakata)
Neglects background	Assumes socio-culturally homogenous learner cohorts (Nakata, Cummins)
Coercive power	Expects learners to assimilate to instructional agenda/culture (Cummins)

Table A2.
Learning experiences (open educational practices and non-open educational practices) coding schema

Table AS3.
Relationships between students' accounts of learning outcomes (border crossings, outcomes and impacts) and the most common learning experiences (open educational practices and non-open educational practices), stronger relationships shaded (i.e. those with more than five common coded fragments)

Themes (learning outcomes)	Number of text fragments	AND all CRP themes	Themes (learning experiences)			
			AND modelling CRP theme	AND practicing CRP theme	AND exclusionary dynamics	AND learning process
<i>Border crossings</i>	<i>Total: 50</i>					
Smooth	13	4	0	4	1	5
Managed	16	4	4	4	0	5
Resistant	13	5	1	1	1	3
Self-managed	8	1	0	2	1	1
<i>Scope of impact</i>	<i>Total: 100</i>					
Academic	33	8	5	8	0	7
Professional	27	8	3	5	0	6
Personal	28	2	2	3	0	7
Societal	12	0	0	3	0	2
<i>Level of impact</i>	<i>Total: 113</i>					
Creates accounts of Indigenous knowledge	13	2	1	2	2	1
Increasing awareness	28	2	2	2	1	3
Actions	14	2	1	6	0	1
Setting intentions	23	8	3	5	0	5
Tensions between systems	35	4	3	6	6	4

Appendix 3

Readings and learning resources for the Cultural Competence unit in the study.

Open Textbook. The co-created open textbook resource “Cultural Knowledges and Work Integrated Learning” can be viewed at: <https://cduebooks.pressbooks.pub/cuc107/>.

Readings

These materials are a mix of open and library subscription materials that were open for CDU students in the study.

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McIntosh, P. (1988), "White privilege: unpacking the invisible knapsack", available at: <https://www.racialequitytools.org/resourcefiles/mcintosh.pdf> and/or

Gorski, P. (2014), "Imagining equity literacy [Blog]", available at: <https://www.tolerance.org/magazine/imagining-equity-literacy>

Semester break

Bali, M. (2016), "Unpacking Terms around equity, power and privilege. [Blog]", available at: <https://blog.mahabali.me/pedagogy/critical-pedagogy/unpacking-terms-around-equity-power-and-privilege/>

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