'It Would Give you a Space to be Yourself': Increasing a Sense of Belonging for Aboriginal Students in Boarding Schools

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Abstract

Sense of belonging is a fundamental human need that can affect long term education and health outcomes. It can also be impacted by the design of the built environment, in this case by the interior design of boarding schools. Within the emerging literature pertaining to experiences of boarding school for Aboriginal students in Australia, issues of loneliness, isolation, homesickness, and the feeling of being 'between two worlds' are commonly reported. However, there is currently a dearth of literature that connects these issues with a potential role for design. Therefore, the aim of this project was to address this gap through Participatory Action Research (PAR) in which data was collected through yarning and drawing with 52 participants. 27 current boarders (all Aboriginal people, 2 male, 25 female), 18 recent alumni (All Aboriginal people, 3 male, 15 female), and 7 boarding staff members (1 Aboriginal person, all female) participated. Four themes emerged that suggest a role for interior design in increasing student sense of belonging. These relate to the institutional characterisation of current boarding schools (Place Identity), avoiding 'all or nothing' social interaction through flexible spaces (Interior Relationships), allowing student participation in ongoing interior design (Spatial Voice), and the provision of spaces that offer social and cultural relief (Third Space). These are described in this paper using the voices of the participants. It is proposed that, although these findings report only a particular collection of voices, the potential application of these ideas may be broad and of benefit to many students.

Key words: Sense of Belonging, Aboriginal, Boarding School, Interior Design, Third Space

Background

The established premise that kin and Country are essential to Aboriginal and Torres Strait Islander peoples' wellbeing (Rose, 1996) conflicts with the reduced education opportunities available in many remote Australian locations. This is particularly the case in Western Australia, where the provision of education services has been "*deemed 'unsustainable'*" in many remote communities

(Guenther, 2015, p. 2). This presents a dilemma for students who wish to pursue opportunities without sacrificing their identity and culture. With "*the majority of remote Indigenous students living long distances from the nearest secondary school*", the '*successful*' education of this group is currently attracting government consideration (Guenther, Disbray, Benveniste & Osborne, 2017, p. 254; Australian Government, 2020, p. 44; Cuervo, Barakat & Turnbull, 2015, p. 4). This is reflected in national targets to 'Close the Gap', of which one of the targets is to increase rates of year 12 achievement for Aboriginal and Torres Strait Islander students: "*Year 12 attainment is an important achievement in itself, but it is also a stepping stone to higher education and employment, opening the door to a breadth of opportunities for young people.*" (Australian Government, 2020, p. 7)

In 2020 it was reported that Year 12 attainment was one of two targets (out of seven) that is 'on track' (p. 60). However, this progress was not true for students from regional and remote locations, in which the gap is reported to have widened: "*Between 2012–13 and 2018–19, the gap between Indigenous and non-Indigenous Australians widened in all areas, except for Major Cities*" (Australian Government, 2020, p. 60).

It has previously been proposed that although billions of dollars of funding have so far been spent on attendance strategies for remote Aboriginal students, "*by and large, none of these policies, strategies or initiatives has worked*" (Guenther et al, 2017, p. 254). This appears to still be a relevant assessment.

Partially in response to the difficulty in delivering secondary education to remote places, there is an increasing support for boarding school programs as a means for Aboriginal young people to attend high school. This strategy is typically underpinned by the assumption that the students will gain "*human, cultural and social capital*" through the experience, aligning with concepts of "*code-switching*", "*two way learning*" and "*orbiting*" that have been identified as effective methods for Aboriginal young people to operate successfully "*in two worlds, and have the best of both*" (Tamisari & Milmilany, 2003; Pearson, 2005; 2009, p. 1; Mander, 2012; Guenther et al., 2017, p. 262). Despite their merits, boarding schools are not without their drawbacks. In addition to challenges of isolation, homesickness, and loneliness, young people navigating a different cultural environment while living away from home can also experience a "*a push and pull of obligations*" between home and boarding school (Rogers, 2017, p.8). For the families of these students, boarding schools can be viewed with some trepidation. Whilst they may be "*the only option available*" for completing secondary school, the fear is that they may give students a "*one way ticket*" out of communities (Mander, 2012, p. 4; Pearson, 2009).

Beyond the students' and their families' perceptions, debate continues more generally as to the benefits and challenges of boarding schools. This is partly attributed to the increasingly clear understanding that attending a boarding school in itself is not sufficient to ensure positive outcomes. As O'Bryan (2016) puts it, the provision of scholarships alone "*is not all that is required to bring about socially just outcomes*" (O'Byran, 2016, p. 180). Furthermore, questions remain as to what should be considered as a 'positive' outcome for Aboriginal and Torres Strait Islander students. For example, it has been suggested that a 'successful' education can often be at the expense of students' sense of belonging which, in turn, can have a deleterious impact on their decision making, health, and education outcomes. In boarding school this can manifest in many ways, such as low academic performance, damaged connections with family and home community, mental health issues, and disengagement from education; issues that have now been widely reported on (Mander, 2012; O'Bryan, 2016; Bobongie, 2017; Rogers, 2017; Macdonald Gringart, Kessaris, Cooper & Gray, 2018; Redman-Maclaren et al., 2019; McCalman, Benveniste, Wenitong, Saunders & Hunter, 2020; Franck et al., 2020).

Sense of belonging is a fundamental human motivator and a significant force in decision making for young people, particularly in regard to the pursuit of educational goals. Cuervo et al (2015) propose that the concept of belonging "*enables a clearer understanding of the efforts made by young people to remain connected to people, places and issues that matter to them*", and by extension it is "*timely for research on youth, and particularly Indigenous youth, to take seriously the conceptual framework of belonging*" (p. 5). The suggestion is that if students feel they belong this has the potential to improve their wellbeing, and in turn increase retention levels and educational outcomes. However, this may be difficult to achieve for those students relocating from places where their background experiences and culture differ considerably from their new environment, which is the case for many Aboriginal and Torres Strait Islander students attending boarding schools. An absence of sense of belonging (for example when students report teasing, bullying, or a feeling of not fitting in) has in some cases been found to be predictive of dropout rates for adolescents (Cornell, Gregory, Huang & Fan, 2013; Korpershoek, Canrinus, Fokkens-Bruinsma & de Boer, 2019). This relationship suggests that boarding schools hoping to increase education outcomes for Aboriginal and Torres Strait Islander young people should be similarly concerned with increasing student sense of belonging.

One factor in boarding schools that may have both positive and negative consequences is the design of the built environment, the qualities of which can affect sense of belonging for those living within it. There is substantial research to show that the design of built environments can impact on the mental and physical wellbeing of all people (see for example Butterworth, 2000; Moore, et al., 2018), as well as research to show this impact for Aboriginal and Torres Strait Islander people specifically (for example; Steele & Keys, 2015; Grant, Greenop, Refiti & Glenn, 2018). This highlights the potential role of the physical environment also in the wellbeing of Aboriginal young people who attend boarding schools, suggesting that the characteristics of buildings are intrinsically connected with wellbeing and experiences of belonging. However, there is a paucity of literature pertaining to the social outcomes facilitated by the design of student accommodation generally, and currently few (if any) studies address the role of design in contemporary Australian boarding schools. Of some theoretical use is a brief period of fascination with environmental psychology in the 1970s and 1980s, which resulted in a series of North American publications concerned with the effect of design on student housing residents within the increasingly commercialised and accessible university market of that time (Bickman et al., 1973; Hansen & Altman, 1976; Mandel, Baron & Fisher, 1980). These studies highlighted the ability for poorly designed student accommodation to negatively impact social experiences, for example suggesting a connection between high density and low levels of helping behaviour (Bickman et al., 1973).

There is a growing body of academic work in Australia concerned with the role of architecture in the lives of Aboriginal and Torres Strait Islander people (see for example the Aboriginal Environments Research Centre at the University of Queensland), however so far none of this work has specifically focussed on the contemporary boarding school setting. The existing architectural research makes clear that 'Euro-centric' conceptions of space, that are often the default basis for design, can be different to Aboriginal concepts of space. Within the existing literature there is also little focus on the potential role of contemporary interior architecture (referred to interchangeably in this paper as interior design). Perolini (2011) argues that interior designers have a responsibility to create spaces that meet the needs of occupants, noting that "*in order to cater for people's wellbeing, a place needs to be able to give its inhabitants a sense of belonging and a sense of identity*" (p. 164). So, although some spaces may be considered to be neutral or have positive connotations for non-Aboriginal Australians, buildings are "*embedded with deeper personal and cultural meaning*", and therefore may contain different historical meanings and symbolic layers for Aboriginal people (Perolini, 2011, p. 164). Few, if any, studies

have investigated the potential role of interior design in the contemporary boarding school experience for Aboriginal students. The aim of this research was to address this gap.

Methodology

This research used a qualitative approach, in which the lived experience of space was foregrounded over mathematical analysis of the built environment. This is in line with the observation by Linda Tuwaihi Smith (1999) that the absolutism of mathematics limits our understanding of space and promotes a *"way of making sense of the world"* that is *"well defined, fixed and without politics"* (p. 51). Further to this, qualitative research has been described as *"essential"* to understanding Aboriginal and Torres Strait Islander students' experiences of boarding school (Rogers, 2016, p. 219).

Within the field of qualitative research, Participatory Action Research (PAR) was chosen as a guiding methodology. Chilisa (2012) states that any research is value laden, and as such the *"choice of methodology used in a study implies a worldview or way of thinking about the topic"* (p. 42). PAR, as used in this project, acknowledges the alternative world views of different students and recognises that space is not culturally neutral. Spaces can, therefore, be exclusive to some groups (Weisman, 1994) - in this case Aboriginal students (note there were no Torres Strait Islander participants in this study). This cyclical and reflective practice of *"humility, inquisitiveness, and openness"* enabled this navigation of different worldviews, while engaging with the community in focus (Wright, Lin & O'Connell, 2016, p. 83).

PAR has been described as a *"spiral of action"* that involves unlimited cycles of planning, acting, and reflecting (Kemmis, McTaggart, & Nixon, 2014, p. 18). Stringer (2014) also describes these phases of action research, but suggests that for *"complex problems and issues"* a more sophisticated adaptation of the process can be necessary (p. 4). In line with this, Figure 1 illustrates the way that the phases of 'plan', 'act', and 'reflect' were integrated into the current study. There were four 'macro' cycles of action within the project, between which reflection and adjustment took place. These consisted of the pilot study, the first half of data collection, the second half of data collection, and the data analysis. Within these larger cycles, participant involvement is represented as a series of 'micro' cycles that form an inner layer of reflective practice.
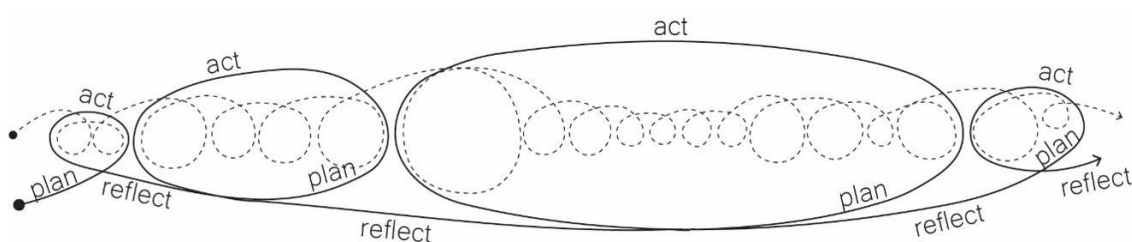

Figure 1: The 'action research helix' as it occurred in the current study (adapted from Stringer, 2014, p. 4)

Methods

The study design was informed by the *Guidelines for Ethical Research in Australian Indigenous Studies* (AIATSIS, 2012). Under the direction of an Advisory Group (the majority of whom were Aboriginal people), a participatory method was developed that combined semi structured yarning with drawing around a continuous roll of brown paper.

Yarning is a qualitative research method that prioritises the voices of Aboriginal and Torres Strait Islander people. It is a form of storytelling, however it differs from other concepts, such as

narrative inquiry (Clandinin, 2006), in that it involves both the participants and researcher to engage in the informal "*journey*" of the conversation (Geia, Hayes & Usher, 2013, p. 15). Bassarab and Ng'andu (2010) describe yarning as an "*Indigenous form of conversation*" that "*is not a one way process but a dialogical process that is reciprocal and mutual*" (p. 37-38). Yarning has also been described as a complimentary tool within PAR (Fredericks, et al., 2011). It is proposed that yarning is an "*equally important*" method for the work of non-Indigenous researchers, as it "*provides culturally secure space*" for participants to tell their stories, and gives a tangible identity to all involved (Geia, Hayes & Usher, 2013, p. 16).

The yarning in this research was informed by known ways of how belonging can be impacted by interior architecture, as identified in existing literature. These factors – place identity, place attachment, collective memory, spatial knowledge, physical comfort and environmental symbols (see Table 1) – were used as guiding prompts for the yarning sessions, however, they did not restrict other topics from emerging.

Table 1: Components of Sense of Belonging to a Place

Components of Sense of Belonging to a Place	
Relph, 1976; Steele, 1981; Twigger &Uzzell, 1996; Zhong & Leonardelli, 2008; Lewicka, 2011; Alawadhi, Chandrasekera & Yang, 2011; Anton & Lawrence, 2014; Yazdanpour & Moztarzadeh, 2014; Hayaty & Sakineh, 2015; Scanell & Gifford, 2017	
Component	**Measurement / indicator**
Place Identity	Continuity of place Distinctiveness of the place Level of self-efficacy within the place Level of self-esteem within the place
Place Attachment	Residence length Sense of security Level of mobility Level to which place is symbolic of past traditions
Collective Memory	Degree of access to shared spaces for events and social interaction Degree of residence continuity Conservation of historic areas, old buildings, and local names
Spatial Knowledge	Degree of familiarity Level of procedural knowledge Level of landmark knowledge Level of survey knowledge
Physical comfort	Physical safety Sense of security Perception of 'coldness' Functionality/ adaptability
Environmental Symbols	Level of familiarity with symbols Level of identification with symbols Feeling of connection with culture

The prompts were organised into a semi structured framework (Table 2). Importantly, this overall structure meant that a sense of belonging was subjectively defined and measured by participants in relation to their own worldview and lived experience. Consequently, the concept of what a sense of belonging is was continually examined through the data collection, and preconceived definitions were not enforced. This reduced the risk of the researcher applying "*stereotypes to communities and individuals*" and allowed participants to control the direction and focus of the knowledge that they shared (AITSIS, 2012, p.4).

Table 2: Semi-Structured Stages of the Yarning

1. Introduction *(build familiarity)*	General discussion of who participants are, where they are from, age, school.
2. Belonging *(establish reference point for belonging)*	Discussion of what a sense of belonging is, if it is important, when do the participants feel it, examples of spaces they feel they belong.
3. Boarding School *(encourage awareness of design)*	Participants describe the architecture and overall feeling of boarding school.
4. Belonging in Boarding School *(connect belonging with design)*	Reflection on if definitions of belonging match with descriptions of boarding school. Discussion of which parts of boarding school help to feel sense of belonging or not.
5. Design Themes *(data analysis and translation to design actions)*	Participants reflect on everything discussed and propose most important factors to consider in the design of boarding schools to have a better sense of belonging.

The Big Roll of Brown Paper

In addition to the consideration that the methods should be appropriate to working with Aboriginal and Torres Strait Islander people, it was also important to design the study so that it be suitable for young people, and to the communication of the topic at hand; interior design. Visual methods have been recognized as highly versatile and effective research tools with young people (Literat, 2013, p. 85). Within this, drawing has the benefit of being able to communicate spatial relationships in a way "*that would be impossible to express via writing or speech*" (Literat, 2013, p. 87). For this reason, and due to the simplicity of equipment and skills needed, drawing was used as a supporting method to the yarning.

All participant drawings were collected on the same roll of brown paper, which in the end spanned over 20 metres long. This format was a deliberate choice to facilitate a sense of connection between otherwise separate groups (and locations) and allowed student participants to also engage in the search for thematic threads. Students could see the drawings of other students, build on their ideas, and feel an understanding for how their own experience fit within a larger context.
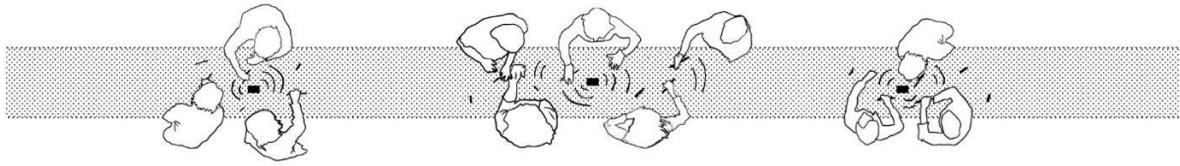
Figure 2: *The continuous roll of brown paper connected separate groups*

This continuity was also effective in increasing the confidence of participants who were reluctant to draw, as they could see that the previous drawings were of a similar ability to what they were able to produce. The brown paper roll served as a *"communicative space"* and a *"public sphere"* for participant discourse, which is argued to be a critical aspect of participatory action research (Kemmis, McTaggart & Nixon, 2014, p. 28). Due to the geographic separation of participants, the roll of brown paper was the primary way of achieving this discourse and was found to be very effective.

Participants and Setting

There was a total of 52 participants in this project (see Table 3 for a summary of details). Twenty-seven of these were current students at the time of research, with a further 18 participants being past students who had graduated within the last ten years. Seven participants were adults in various support roles that involved extensive contact with Aboriginal and Torres Strait Islander students in boarding school, including program coordinators and house parents, of these only one person self-identified as Aboriginal. All participants were recruited via word of mouth using a snowball method, starting with members of the Advisory Group.

Table 3: Participant and school information

Participants and research setting	School information
Total current students (27)	
Current A 01-03: Common room (6)	Rural, Co-ed, all Aboriginal students
Current A 04-05: Common room (3)	Rural, Co-ed, all Aboriginal students
Current B 01-05: Mid-term school camp (6)	Multiple schools, majority non- Aboriginal students
Current C 01: Boarding house dining room (2)	Metro, Co-ed, majority Aboriginal students
Current D 01: Common room (4)	Metro, Girls, majority non- Aboriginal students
Current E 01: Boarding house meeting room (2)	Metro, Girls, majority non- Aboriginal students
Current F 01: School library (4)	Metro, Girls, majority non- Aboriginal students
Total past students (18)	
Past A 01: Uni accommodation study room (2)	Metro, Girls, majority non- Aboriginal students
Past B 01: Uni accommodation lounge (11)	Multiple schools, majority non- Aboriginal students
Past C 01: Participant home (4)	Metro, Girls, majority non- Aboriginal students
Past D 01: Café (1) Pilot	Metro, Co-ed, all Aboriginal students
Total staff (7)	
Staff A 01: Common room (1)	Rural, Co-ed, all Aboriginal students
Staff B 01: Café (1)	Multiple schools, majority non-Aboriginal students
Staff C 01: University meeting room (1)	Multiple schools, Girls, majority non-Aboriginal students
Staff D 01: Boarding house meeting room (1)	Metro, Girls, majority non-Aboriginal students
Staff E 01: School library (1)	Metro, Girls, majority non-Aboriginal students.
Staff F 01: Common room (1)	Metro, Girls, majority non-Aboriginal students
Staff G 01: Participant's office (1)	

The research was approved by the Human Research Ethics Committee at Curtin University (HREC). As described above, the project was designed in such a way to be appropriate to working with Aboriginal young people; namely that it was participatory, visual, and responsive in nature. The project was also accountable to an Advisory Group, which was formed as a result of early networking with relevant communities and organisations. Additionally, an Aboriginal Cultural Advisor who had attended boarding school herself in the 1970s, and who was known personally to the primary researcher, assisted in the early development of the research method. This included participation in a pilot study, which involved testing and talking about the method in relation to the Cultural Advisor's own experiences, and subsequently recommending her granddaughter to participate in testing the method further.

Analysis

Two types of data analysis were used to make sense of the drawings and audio transcriptions produced in the research, these were constant comparison analysis (Hewitt- Taylor, 2001) and thematic analysis (Braun & Clarke, 2006). Constant comparison analysis is a qualitative method for analysing data in which information is constantly organised into emergent themes or codes as it is produced (Hewitt-Taylor, 2001). This occurred in this project in two ways. The first was through the immediate access that past and current student participants had to previous yarns through the drawings on the brown paper roll. This meant that they could observe the traces of previous discussions and either confirm, challenge, or expand a topic that had been raised. The second way was through a preliminary coding of audio transcriptions into emergent themes by the researcher after the fourth group yarning session. The strength of this was that the themes became richer and more focussed as the data collection progressed. However, this also meant that it was difficult to evaluate the themes in terms of frequency or originality, as the responses did not emerge in isolation of one other. This is in line with the characteristics of qualitative research but is an acknowledged limitation of the project.

At the end of data collection, all the material was analysed through a process of inductive thematic analysis, which is "*a process of coding the data without trying to fit it into a pre-existing coding frame, or the researcher's analytic preconceptions*" (Braun & Clarke, 2006, p. 12). The six stages of thematic analysis proposed by Braun & Clarke (2006) were adapted to include additional stages of discussion and adaptation with participants and the Advisory Group.

Though it was not the goal to quantify the value of individual views, some themes have been contextualised numerically. This is because in some instances there was strong agreement by participants on topics, or conversely in some cases there was strong disagreement. This information is for the purposes of providing a 'thick description' of the data, which is an established way of establishing trustworthiness in qualitative research (Nowell, Norris, White & Moules, 2017).

Findings

Four major themes emerged from the research: Place Identity, Interior Relationships, Spatial Voice, and Third Space. The first three themes each relate to a different scale of design, starting from the big picture character and associations with the place, then dealing with the organisation of social relationships allowed for by the interior design and, next, the individual role of occupants within the space. The final theme, Third Space, presents participant views on the need for a defined gathering and transition space within the boarding school. Each of these themes contains several sub-themes which are presented in a narrative style, using quotes from the participants.

Throughout this section the participant quotes are indicated by a type; 'Past', 'Current', or 'Staff', then by a letter to indicate the associated school or organisation, and lastly by a number to indicate the session, as some settings hosted multiple research sessions. This identification centres the group (which were varied in size) rather than individual participants. For example, 'Current A 01' refers to a group of current students who participated at 'School A', and this was the first or only recorded session at that school. While this organisation of data reduces the ability to distinguish individual speakers from one other, it is reflective of the way in which concepts and reflections were usually made collectively. For example, a group of past students collaboratively described the feeling of arriving home after being away at boarding school:

Speaker 1: It's that feeling when...

Speaker 2: When you see the water and then you see the mangoes and then you see the creeks. You're like "I'm getting closer." Just as you're hovering on the tarmac, and you're like waiting for the... and then the bounce of hitting the tarmac.

Speaker 1: Stepping out of the plane...

Speaker 2: and then you're like, "I'm here. I've landed."

Speaker 3: Yeah, stepping out of the plane and feeling the heat.

Speaker 2: It whacks you in the face, kind of smacks you.

Speaker 1: And that's home. I'm home.

Speaker 2: And then you start sweating and your feet start slipping out of your thongs.

Speaker 1: You hold on to the rail and your hand... kind of condensation.

Speaker 2: And you're smiling anyway because you're like "yes."

Speaker 1: And then you come around the corner and you're waiting for your family there.

Speaker 2: They're all siting there. And it turns out someone else that we know was on the plane and they're going back to their family.

Speaker 1: Yup, that's it. That's home.

<div align="right">Past C 01</div>

This quote is an example of how the participants recounted memories and described ideas in a collective way, and why quotes have typically been attributed to groups rather than individual speakers.

Theme 1: Place Identity

The overall identity and character of the boarding school was described by many participants as a barrier to their sense of belonging. This included both physical and intangible qualities of the architecture that could contribute to a feeling of exclusion, which are presented in this section in the order of 'Home is home', 'Feeling welcome', 'Connection to country', 'Symbols', 'Intergenerational memories', 'Spirits', 'Institutional', and 'Feeling Watched'.

Home is Home

In some cases, the initial transition to boarding school was described as a shock; *"Especially the transition from going from small community to straight-up boarding school and it's like, 'woah'... this school has an elevator in it"* (Past C 01). Three staff participants, all three of the past student participant groups, and four current participant groups commented directly on the role of familiarity (or lack of) in feeling a sense of belonging at boarding school: *"...sometimes it just gets so overwhelming where you feel like you can't just be somewhere that you're familiar with. And obviously, we're gonna be familiar with more Indigenous people and stuff"* (Current D 01).

A lack of familiar faces, sounds, behaviour, and shared identity were sometimes described as a greater barrier than the physicality of the buildings, for example: *"... it's more about, do I feel safe? Is there a familiar face in the corridor? Is there an image who reflects who I am?"* (Staff C 01).

In response, some students suggested the ability to simply be in the presence of other Aboriginal people as a strategy to relieve overwhelming unfamiliarity. Interestingly though, participants suggested that school and home should maintain distinctly separate identities. This suggests that simply replicating the home environment is not the path forward for increasing sense of

belonging, rather that *"home is home"* (Past C 01) and boarding school should be *"like home but different"* (Current B 02)*.*

Feeling Welcome

A perceived distinction between formal permission to be at boarding school and a genuine sense of inclusion was commented on in six of the 18 yarns (30%). For example, it was raised by a group of current students that, for example: *"I just feel like it's unwelcoming 'cause why would you accept these people and want them to come to school if you're not going to celebrate and acknowledge their culture and what makes them feel okay?"* (Current D 01). Where cultural knowledge and protocol was not imbedded, it was suggested that this contributed to an additional dimension to homesickness; *"I just miss the country, you know? If you're homesick and you're Aboriginal, you're country sick too"* (Past C 01). It was proposed by some participants that despite the cultural and geographic diversity between Aboriginal students within boarding school, reinforcement of shared Aboriginality through the physical environment could reduce homesickness and increase a sense of feeling welcomed and included:

> It doesn't need to be our language groups and stuff to make us feel less homesick. It's that whole Aboriginality of the place. You start acknowledgements to Country or native plants and all those places and those kinds of things. You still feel included and you belong, because you're still an Aboriginal person. (Past C 01)

Connection to Country

Every yarning session within this research included a comment from a participant relating to the need for increased connection to Aboriginal culture in the boarding school environment. In seven sessions, it was specifically suggested that this should be to the local Aboriginal culture, which in most cases was Whadjuk Nyoongar. One student reflected that when she first arrived in Perth she *"didn't know Nyoongars existed"* and assumed that the Aboriginal people in her home region *"were the only black guys left"* (Past C 01)*.* This situation was suggested to be compounded by assumptions from people at school that they (the student participants) could represent all Aboriginal cultures even though the students were still learning themselves, for example; *"… for me myself, I don't actually know my language or anything and I don't really know much about my culture… I don't really know that much"* (Current E 01). Clearly there is a need for the boarding house to be informed by Aboriginal culture and, in particular, by the Country that it is located on, at a core conceptual level as a way of welcoming students and allowing them to learn; *"so it's our land then that's making that space"* (Staff B 01).

Symbols

Symbolic material such as the Aboriginal flag, Aboriginal artwork, and representations of Aboriginal people in school paraphernalia such as signs, banners, and leaflets were also identified as ways to increase a positive association with the boarding house. One student described the lack of diversity in a nearby school sign as a barrier to her sense of belonging: *"this is gonna sound weird, but you know that sign… it's just two girls…you'd think there'd be different cultures, like different colours"* (Current D 01)*.* Another participant described intergenerational struggles to have the Aboriginal flag flown at her school; *"Mum… she was the first Indigenous student at this school… Since she was here, she's been wanting the Aboriginal flag up, but they said no. We only got it up last year"* (Current E 01). For many this was one of the first or most important elements of the built environment that they identified as needing to be changed: *"I always say the easiest first starting point is stick an Aboriginal flag out the front"* (Staff B 01). Plants and gardens were also described as having a symbolic role, for example the rose gardens at one school were described as *"very English"* (Staff B 01).

Intergenerational memories

Participants highlighted intergenerational associations with boarding school as important in their consideration of whether or not they could feel a sense of belonging there. Even when the exact histories of the schools were not known, it was proposed that the "*style of the building*" can create "*negative thinking*" (Past A 01). In regard to the boarding school site, participants stressed the need to '*put it in the right place*' (Past C 01), because "*there could maybe still be some sacred, ancient sites around*" (Current E 01). This unease was sometimes informed by recent family histories. For example, a staff participant who provided support to Aboriginal students across multiple schools explained that her father would not visit her in one of the schools she was working at:

> *Now the reason I say that is my Dad's Stolen Generation. He was taken away by the Catholic churches. He will not go to any of these schools, even if I was working there, he would not come… So when you look at our kids you've got to think a lot of our kids are raised by grandparents who are my Dad's generation. If they won't come to the school because of the physical outlay…how are you going to get them to support the kids to come. Even though they know the right thing is for them to come for their kid's education, they won't come and visit them. So therefore, you're not creating that sense of belonging, because you're not getting that reinforcement from home saying, "Hey, no. This is a good place to be".*
> *(Staff B 01)*

Spirits

In five of the student yarning groups, participants shared stories about their experiences with bad spirits or thinking the school was haunted. The subsequent handling of the situation by the school was seen as a barrier to their sense of belonging, as this had sometimes resulted in friends (or people they know of) having their mental health impacted. A staff participant with experience in supporting Aboriginal students in both boarding school and university accommodation commented on the need to provide smoking ceremonies to help students feel safe: "*So there's a whole spiritual realm, they come in and they feel there're spirits and they feel they're scared…*" (Staff C 01).

The emotional impact of dealing with spirits was also described as affecting retention; "*… biggest mob of girls left because they had demons and spirits in their rooms*" (Past C 01). This was attributed to the difficulty in getting help from home; "*they can't help us all the way from there*" (Past C 01), the lack of knowledge amongst staff to understand their fears; "*the girls would tell the mistresses and then the mistresses would come to the other Indigenous girls and be like, 'what do we do? We have no idea.'*" (Past C 01), the trouble they would get into when trying to sleep in their friends' rooms instead of their own; "*after one night the boarding house told me I wasn't allowed to do it anymore*" (Past C 01), and the subsequent feeling of isolation and the frustration at the lack of any other options; "*I can't sleep on my own!*" (Past C 01).

Although this problem is in many ways administrative, the students' ability to respond effectively to the situation seemed to be limited in part by environmental elements, such as the strict bedroom arrangements, lack of ventilation, and their underlying (but not specific) perception that there was a negative history to the boarding school site. Notably, this topic was not raised in the rural boarding school that catered only to Aboriginal students, in which many of the buildings were erected recently (in the last 10 years), and at which a local Aboriginal Elder was employed to provide cultural guidance. Though it is clearly not the only factor, the spiritual unease described by participants could be impacted by the design of buildings. This could be in that the places this occurred in were typically old, the students had little or only negative knowledge about the

history of the building, and the buildings were ill-equipped to accommodate culturally appropriate support (such as smoking ceremonies).

Institutional

Boarding schools were sometimes described as being associated with other institutional settings, such as a prison or hospital. Six participants explicitly compared boarding school to prison with statements such as "… *the windows just feel like prison, they actually do*" (Current C 01). Another six participants described boarding school through negative associations with institutional settings, such as with terms like "bland", "tight", "structured", or comparing the design with a hospital; "*it just makes me feel like I'm in a hospital or something… they're trying too hard to make it too vibrant and bright*" (Past A 01). An institutional feeling was sometimes attributed to the 'blandness' of the design, saying that; "*… boarding is just so bland, all the colours, everything. It is a very bland space*" (Current B 02). On the other hand, it was also expressed that bright colours could equally reinforce an institutional feeling; "*but nothing bright and yuck… you know how Catholic schools usually go for like the greens and the reds in the rainbow*" (Past C 01). It was suggested by some participants that 'natural' materials and neutral colours complimented by the students' own decoration and taste and would make the spaces feel "*a lot more realistic to home than having purple couches and colourful carpets*" (Past C 01).

Feeling Watched

Student participants described the high level of structure in the boarding schools as a barrier to their ability to feel a sense of belonging. A more relaxed overall typology was proposed:

> *Speaker 4: More flowing.*
>
> *Speaker 3: Yeah. If it was more loose, I want to say, you feel you're not on a tight strict plan…*
>
> *Speaker 2: Everything is just so structured. (Current D 01)*

These was representative of a tension between the necessity for staff to provide a high level of care, through surveillance, and the feeling described by students that they were constantly being watched and judged. This was highlighted by a staff participant who suggested that a lack of belonging was directly connected with a feeling of being (un)trusted; "*a sense of belonging also means trust*" (Staff B 01). That is, in direct conflict to the creation of a trusting relationship are the surveillance measures incorporated into the design of boarding school architecture, such as through the use of cameras and the arrangement of floor plans that prioritise clear sight lines for staff over students. Further to this direct surveillance, students also described other intangible feelings of being watched and judged; "*Our boarding house, kinda feels like you're always being watched because we always have cameras. There's like cameras down every hall. I feel like it's a bit excessive*" (Current B 04). This was described by some participants as leading to a lack of a trusting relationship with staff, a feeling of self-consciousness, not being able to relax, and feeling a general lack of freedom; "*It's actually really hard, I'm not going to lie… I don't really know how to explain it, but I feel like everybody's watching*" (Current E 01). Together this contributed to the institutional characterisation of the boarding schools. Strategic interior design could be used to ease this tension through the provision of spaces that allow staff to be aware of student activity (and know that they are safe), while still allowing students a sense of autonomy and flexibility.

Theme 2: Interior Relationships

This theme relates to the social relationships allowed for by the interior design of boarding schools. These are presented in the order of 'Making a mob', 'Sleeping arrangements', Circular design', and 'Options'.

Making a mob

Participants identified the essential role of relatedness and social knowledge in creating a sense of belonging during their stay at boarding school. While it was identified by some participants that schools had used tools such as maps and photographs to visualise the home locations of residents, it was commonly agreed that a more complex representation would enable students to conceptualise social and spatial knowledge better. For example, as a *"big twisty family tree"* (Current A 01). It was suggested that this mapping would help to identify potential existing connections with the other Aboriginal students, which would allow students to locate themselves within the social matrix of their new environment. Once these social connections are established, students suggested that it can be useful to *"make a mob"* (Past C 01) as a way to create a sense of belonging through shared Aboriginality. At present, however, the participants reflected that there are several barriers including a feeling of being watched (described in the previous theme), a lack of meeting space, and pressure to 'mix' with the other (non-indigenous) students. Some participants described being overtly disbanded by staff: *"and we have rules where we literally can't be in a big cluster"* (Current D 01).

Sleeping Arrangements

Participants presented a diverse range of positions on the topics of sharing bedrooms and communal sleeping in dormitories. Many expressed a strong wish to room alone for increased independence and autonomy, while others had found the experience of being alone (including not being able to share a bed) as very unfamiliar; *"most people, back at home, they put beds closer to each other…I have like little sisters and brothers like to sleep with me, yeah"* (Current A 01). Being able to maintain mixed age relationships (something that is currently not supported with age segregated bedroom arrangements) was also suggested, with students describing the immense value of having access to an older sibling, cousin, or family friend for establishing a sense of belonging and identity within the boarding school; *"well, when I first came here, I had my sister, so…I got introduced to all of her friends, and I felt good. But some girls, they come here and they don't know anyone"* (Current A 02). The value of having older relatives or friends was extended to their bedrooms, which became informal culturally safe social spaces. For example, one group of students described having *"sneaky sleepovers"* (Past C 01), in which students would secretly drag couch cushions or mattresses to the bedrooms of older students in order to sleep communally.

Overall, there appears to be a tension between maintaining a sense of privacy and reducing the experience of social isolation in all aspects of boarding school, hence the need for a middle ground. In the case of sleeping arrangements, it was clear that there is not a single solution that would work for all students, and so perhaps a variety of bedroom arrangements is needed.
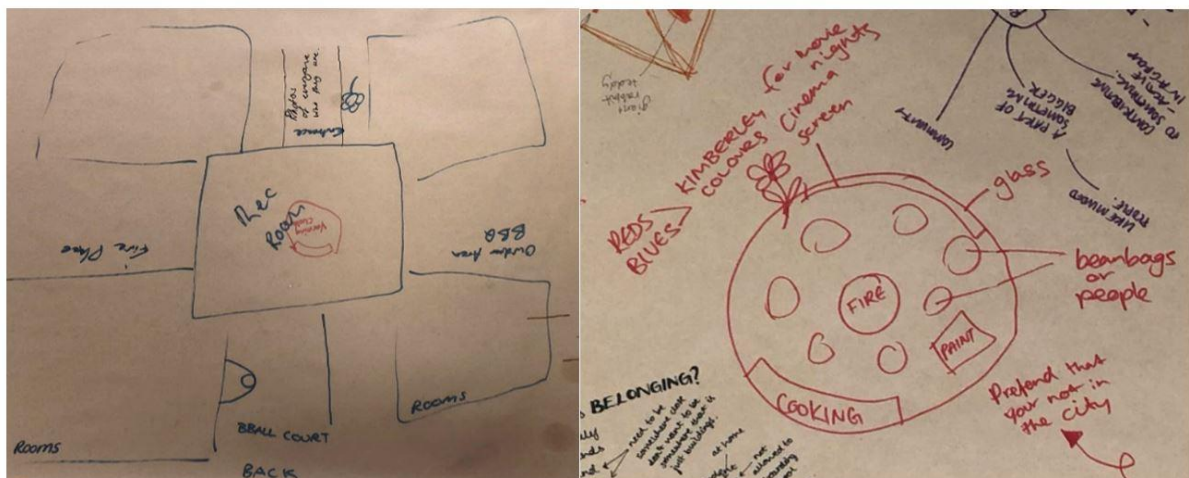
Circular Design

This leads to the participants' perceptions of what a future boarding school should be like. Participants described current boarding schools as typically being very 'square'. In response, circular layouts and modes of wayfinding were proposed. 'Circularity' was understood as more than just the literal shape of a circle, but also its symbolic meaning and overall functionality (Table 4).

Table 4: Meanings of Circular Design Compared to Current Square Design

Circular	Square
Soft	Hard
Courtyard	Wings
Central	Corridors
In the middle	Corners
Branching	Sprawled
Around	Rectangle
Within	Square
Nested	Tight

While students commonly drew designs in the shape of a circle, it is important to understand that it is the function and feeling of the space that was discussed as needing to be more circular, not just the placement of walls. For example, it may be possible to design a 'soft' space that wraps around a central courtyard without using a curved form. It may also be possible to design a circular environment with long corridors that have a hard and linear quality. See Figure 3 for student drawings that are representative of this. This is not to equate 'circle/square' with 'good/bad', but rather to highlight the difference in social dynamics between these two ways of approaching design.

Figure 3: Circular Design Using Squares (left) and Circular Design Using a Circle (right).

Options

Participants suggested the need for more options within the overall design of boarding schools. This could also be thought of as avoiding an 'all or nothing' approach, such as having to choose between being completely isolated or completely public. It was suggested that future boarding schools should nest smaller settings within a larger space to create additional thresholds and transitional zones that blur the, sometimes extreme, contrast of 'alone' and 'together'. For example; *"different spaces within that massive space"* (Current E 01), *"it's private but it's not"* (Current D 01). Creation of nested options within larger spaces could also provide a way for

future expansion without defaulting to 'sprawling' corridors. Some participants also suggested that several types of housing options be available, to respond to the variety of needs that are required within boarding facilities of all densities. For example, a staff participant of explained the effective role of two independent living homes on campus in preventing conflicts that might otherwise have resulted in students being reprimanded or expelled. Although the self-contained units were originally intended to be rewards for students who demonstrated good behaviour, the school staff instead found unexpected value in the setting for students that were struggling with the social intensity of dormitory living:

> *…and that's how it started out, we were just taking those role model students out of the dorm and putting them in there as a reward, but the reality was it's better for some of our other students who aren't coping with community life to go in there. If they had some peace, and they just have people off their backs, and they don't have to hand their phones in, and they don't have to toe the line all the time… so girls that don't cope with having noise and people in their face all the time, so if they're more solitary style girls, that works ideally, perfectly for them. (Staff A 01)*

When asked what the effect would be for students if this option was not available, the staff member explained that:

> *Some of those girls would be sent home… For example, one of the ladies that's in there now, it was not an option for her to come back into the dormitory, and so for her to be able to come back and graduate this term, that was made available to her… (Staff A 01)*

In the case above, being able to accommodate the different needs of students through flexible housing options was the difference in a student being able to graduate or not.

These participant voices suggest that it is important to provide a variety of options within the design of boarding schools, and to do so at multiple scales. For example, in the overall campus planning, the design of each building, the design of the spaces within those buildings, and (as will be discussed next) the way that residents interact with those spaces.

Theme 3: Spatial Voice

This theme is about the ways that interior architecture could increase sense of belonging by giving the students more of an individual voice within the boarding school spaces. This theme is discussed in the order of 'Activities', 'Flexible rooms', 'Self-expression', 'Temperature and lighting', and 'Legacy'.

Activities

Many student participants described activities that could increase their sense of belonging that were already available to some extent but could be better accommodated for. This included planting; "*I can look after them*" (Current A 01), cooking; "w*hat about a room where you could just cook in when you wanted to cook?*" (Current F 01), painting; "*painting and just like carving, and stuff like that*" (Current A 01), caring for animals and small children; "*and just the feeling of having a dog around and being able to sit there and pet it, and just knowing that it really loves you*" (Current C 01), and playing; "*Murder in the Dark. That's the best thing about the boarding house, because the lounge room is so big and to make it not dangerous, we put the cushions all over the floors so we can still run around and play the game*" (Current C 01). These activities all related to a situation in which the student could have an active role and in which the task was not dependant on a certain number of people.

Flexible rooms

A sense of individual voice and control was found to be especially needed in the students' bedrooms, which are typically designed with fixed furniture, one or two harsh artificial light sources, fixed air temperature, and limited storage (see Figure 4 for student representations). Students described the potential value and novelty of being able to re-arrange rooms to suit their individual needs and preferences. However, even when this was logistically possible (i.e. the furniture was loose), there was usually only one possible layout in which the room could remain functional and so was evaluated as not worth the effort: *"I pushed my bed to the far side. What I didn't realize was the towel rack was there and I hit my head on the towel rack like four times... I think that's something they should take into consideration"* (Current B 02). One past student explained why that although this could be difficult or time consuming, it was still worth the trouble; *"to make it feel the way they want it to feel. A little bit more comfortable the way they arrange it, like 'Oh I like it like this'. Everybody has their own certain way they like things"* (Past C 01). It is worth noting that although the National Construction Code Series (2019) does not specify a need for fixed furniture in Class 3 buildings (the class for boarding houses, see part A6.3), safety considerations may be a reason behind the current fixed designs. Nevertheless, it seems likely that the efficiency of a 'one size fits all' approach to durable fixed cabinetry is the driving force behind this choice. The participant voices here indicate that there could be benefits in relaxing the extent to which the design of bedrooms is predetermined, not only for the overall layout but also in the students' ability to customise and decorate superficial elements.

Figure 4: Drawings of Shared Bedrooms at Two Different Metropolitan Boarding Schools Showing the Fixed Furniture Layout.

Self-expression

The value of physical self-expression in the form of photos, decoration or displaying sentimental items was raised in all but three of the yarning sessions. A student described the anonymity of bedrooms; *"and your rooms do feel a little depressing to be honest, and you have to spice it up ... put things on your walls and stuff"* (Current B 02). Decorating bedrooms was as a way to make the rooms feel their own, to reinforce their sense of identity, and to communicate important relationships and values to staff and peers. Interestingly, this sentiment was also expressed by every staff member interviewed. For example, *"so the other thing I suppose which grounds them constantly to home is in every room there are photos of their family... So they just make their space their own"* (Staff F 01). Despite the seemingly unanimous support from staff for this form of decoration, barriers were described in the form of bans on sticky materials that might damage the wall surfaces. One participant explained that *"you could get away with putting it over the drawers and the cupboards and stuff, but not directly on the walls because blu-tack and sticky tape aren't allowed"* (Past C 01). The effort required in repeatedly re-decorating every school term was

also highlighted; "…*every term, that's four times a year…you want stuff to make you feel like you're home but…it's a pain*" (Past C 01). This suggests the need for an approach to the design of both storage and decoration in boarding school bedrooms that allows students to take ownership of their most personal spaces while being responsive to the transient nature of room occupation.

Temperature and Lighting

In addition to the rigidity of the physical layout of furniture, students also commented on the climate as being inflexible and at times, hostile. One student described tension that could arise when pairing students from different home climates in the same room:

> *…when you share an Aircon, you gotta like think of the other person… But some people are more tolerable to heat and some people are more tolerable to cold. So they pair up people who are from the north who can withstand 40 degrees all the time with people who live in two degrees and then think it's okay.* (Current B 02)

All but two of the student participants had relocated from a distinctly warmer climate, and many participants similarly described the experience of feeling too cold while at boarding school. Additionally, a lack of warmth could be accompanied by a lack of light, in the case of poorly lit or dark rooms; "*there was just never enough light*" (Past C 01); "*I don't get a lot of sunlight in my room*" (Current B 02). This can be especially a problem for students who are not used to being alone in dark spaces "*…so I've had a lot of trauma with students who've never slept with the door shut. The darkness scares them*" (Staff C 01). One student described the poor design that caused a lack of natural light in her room, and the subsequent impact on her mental health:

> *I was in a room last term and it had a window, but it was facing a wall, and so I didn't get any daylight, and I got very sad all the time… no sun actually coming in. It was rather depressing.* (Past A 01)

By contrast, many participants referenced light or warmth in their descriptions of environments that where they felt a sense of belonging, for example: "*…the things essential to me feeling like I belong there was that warmth and feeling safe, those are the two things*" (Past B 01). The accounts depict both a physical effect and a symbolic association with warmth and light that impacts on sense of belonging.

Legacy

Student participants described the marks they left at boarding school as contributing to a sense of legacy and tradition. This included graffiti, scratching into materials, gardening, murals, and accidental damage to school property. One student recalled writing her name under her desk and then when later asked if there were any parts of the boarding house that she would feel sad about changing in the future, replied "*literally just the desk*" (Current B 02). Another student proposed an idea for formalising this sort of attachment:

> *Even if we did a wall full of bricks and you wrote your name in a pattern on a brick. It would be cool even if it started with teachers or with us, if we all started by getting a brick and building our own wall. Like every time we come you add a brick to the wall, which would be building the wall up and then spreading it out.* (Current C 01)

These traces of occupation were discussed not only in terms of the meaning to individual people, but in the shared stories that connected them to their current, previous, and future cohorts: "*…that also instils a bit of pride in being there as well, knowing that those other girls have been there, you know?*" (Past C 01).

Linking back to the first major theme of establishing a positive place identity, students typically expressed a strong sense of attachment to elements of their boarding school environment that they had left a permanent mark on, or where they knew a story about someone who had. Even when students recalled overall negative experiences in which they felt they did not fit in at their boarding school, a sense of ownership and belonging was sometimes described to items and environments that retained a trace of their identity. These accounts suggest that provision could be made for residents to leave a permanent legacy in the school architecture.

Theme 4: Third Space

This theme addresses the idea of a defined interior space, or 'third space', that could be provided for Aboriginal and Torres Strait Islander students within boarding schools. Participant views on this topic are presented in the order of 'Ownership' and 'Switching off'.

Ownership

Many participants discussed the need for a dedicated Aboriginal space within their boarding schools; *"I reckon there definitely should have been a space for Aboriginal students"* (Past C 01). However, there were opposing views amongst participants on this topic. One view was that a sense of belonging could be effectively increased through an isolated sphere within a larger boarding environment, and that this was a necessary first step if wider cultural change was needed within the school (an example of such a space is depicted in Figure 5). Challenging this notion was the view that the whole environment should instead be designed to encapsulate 'third space' and 'belonging' qualities, and that to isolate Aboriginal and Torres Strait Islander students from the wider cohort would be a reactionary short term solution that does not sustainably address the larger problem. This tension responds to the perceived negative consequences of further isolating Aboriginal students within the school environment, with some staff and students expressing concern that this will exacerbate existing experiences of racism and misunderstanding. It was generally agreed that the goal should be for entire campuses to be culturally safe; *"Aboriginal culture should be through everywhere…it's everybody's space"* (Staff B 01). However, one past student articulated the problem of trying to execute this vision, feeling that this was unlikely to be possible in the near future; *"I think for the whole boarding house to be that space, it would be complete culture change for the whole of Australia for that to actually happen"* (Past C 01).
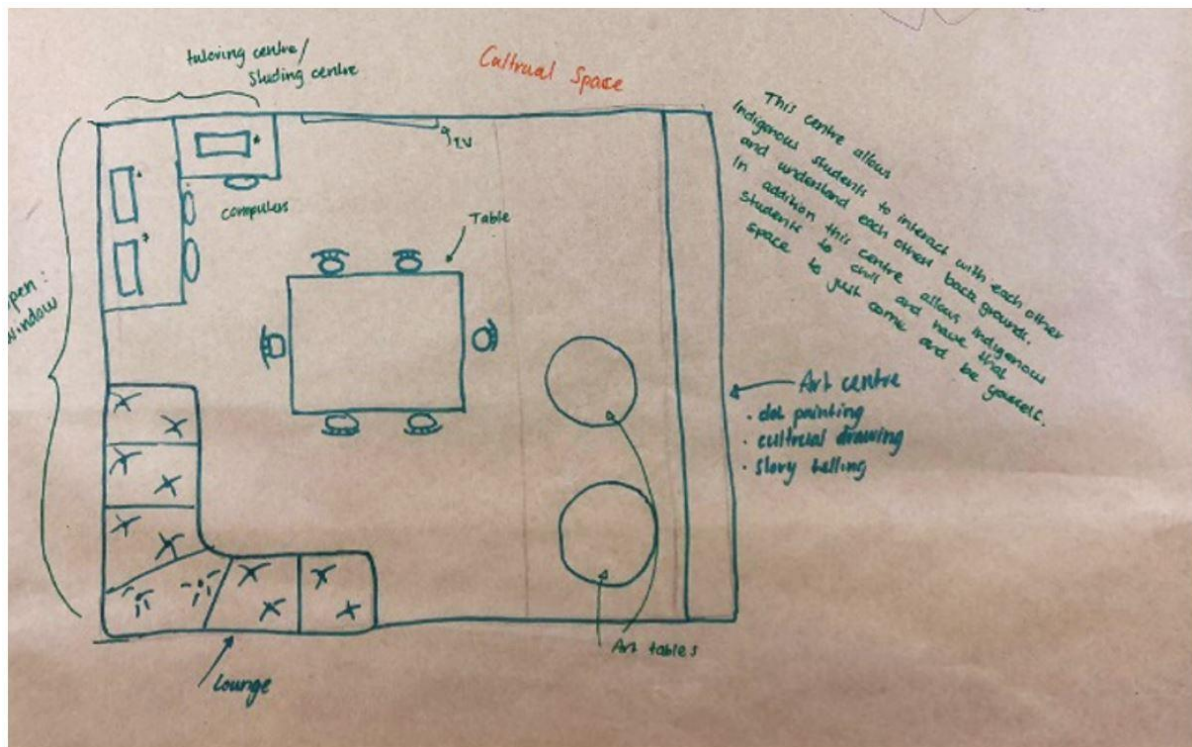
Figure 5: Student Proposal for a Dedicated Cultural Space; the text reads: "This centre allows Indigenous students to interact with each other and share each other's backgrounds. In addition, this centre allows Indigenous students to chill and have that space to just come and be yourself."

Switching off

According to participants, one of the main purposes of a having distinct space where they feel a sense of ownership, was to be able to 'switch off' from school. This was in response to the described pressure of operating in a mainstream or non-Aboriginal context without respite. As one student explained, they're "*at school 24/7… You never really have an escape*" (Current D 01). This was echoed by another student who expressed the need for an escape from school; "*Like from school, switch off the rules*" (Current A 01). A staff participant suggested that an in-between space could help students transition between their different obligations; "*like a palette cleanser or something… it's that whole, it's code switching, but a transition period*" (Staff B 01). As this student described, the space should first have its own identity and feeling:

> It should feel different. It shouldn't just be someplace where you go and you're like, sleep, get up, go back to school. It should be somewhere where you want to be. Friendly. And you look forward to going to and just hanging out with your friends and everything. (Past C 01)

As discussed, the idea of an isolated cultural space was not considered to be useful by all participants, for example in those schools that catered only for Aboriginal students, or where Aboriginal students outnumbered the non-Aboriginal students. Similarly, participants who were one of only a very small number of Aboriginal students at their boarding school expressed a concern that this type of space would create division and further isolation for them in relation to their peers: "*…because there's a really small amount and it's picking it out from the group, that's how I feel… it would kind of go to waste*" (Current E 01).

However, these participants still described other ways that they access spatial and sensory retreats, for example by being alone outside; "*If I felt overwhelmed or feel a bit out of place, I can always go outside or go for a walk*" (Current E 01), daydreaming alone; "*I sit on, I lay on the bed and*

look at the ceiling" (Current A 01), or listening to music *"… just put music in and relax and get all my thoughts out"* (Current E 01). This could suggest that various models of providing a spatial form of cultural relief for Aboriginal students in residential education spaces may need to be considered on a case by case basis depending on the cultural and social dynamics of schools. While the participants varied in their perspectives about this topic, there was unanimous agreement about a need for a space for relief and support while (importantly) wider cultural change also occurs.

Discussion

The participant voices in this research suggest that the design of interior architecture can affect the social experiences of boarding school for Aboriginal students, and that this needs to be considered in the various stages of design and planning. Additionally, student participants were frequently considerate of the experience of their non-Aboriginal peers, and especially of international exchange students with whom it was suggested they could particularly relate to; *"I guess we could also relate to them because they're coming to like, culture shock. We came to a culture shock"* (Current D 01). As a result of this consideration, the design ideas that emerged may to some extent be beneficial to all boarding school residents, and perhaps any young person living away from home in a shared environment. Most of the past students who participated were also attending, or had graduated, university and had experienced different forms of tertiary student accommodation. This was sometimes also reflected upon in the discussions. Many similarities in the issues and successes of these two typologies were described, suggesting that findings from this study may also have some broader applicability to the design of student accommodation in general. The transition between these housing environments is an area requiring further research.

Many themes that emerged in this research were aligned to those in the existing literature. For example, this is not the first study in which Aboriginal students have reported a feeling of disorientation, unfamiliarity, and even a sense of shock in response to the built environment of the boarding schools they attend, particularly in the initial weeks of transition (Mander, 2012; O'Bryan, 2016; Rogers, 2016; Bobongie, 2017; Macdonald et al., 2018). Similarly, the apparent tension perceived by students between the structure of boarding school and their personal freedoms has been previously identified. Benveniste, Dawson and Rainbird (2015) observed that *"adults do not value adolescent behaviours that involve unstructured activities such as 'hanging out'"* and *"therefore often do not provide the spaces and settings for engaging in less-organised and less-regulated leisure activities"* (p. 170). The idea of a third space, as described by participants of this research, has many intersections with established concepts such as *'Third Space'* (Bhabha, 1994), *'Counter Space'* (Elston, Saunders, Hayes, Bainbridge & Mccoy, 2003), *'Holding Space'* (Mayeda, Keil, Dutton & 'Ofamo'oni, 2014), and *'Meeting Space'* (Barney, 2018). In particular, the described proposals for a dedicated Aboriginal space have similarity to the proposal for a *'Counter space',* which involves an outer layer to act as a cultural interface for two way learning, and an inner sphere that should be reserved as a safe environment for Aboriginal people only (Elston et al., 2003).

While this research has identified a broad relationship between the interior architecture of boarding schools and Aboriginal students' sense of belonging, the impact of more specific environmental elements on students' psychological wellbeing is something that could benefit from further research, which could include quantitative studies. For example, seemingly superficial issues such as the quality of temperature and light can be viewed with greater significance when considered in relation to the established psychological phenomenon of seasonal effective disorder (Rosenthal et al., 1984; Molin, Mellerup, Bolwig, Scheike & Dam,

1996), the links found between low temperatures and perceptions of social exclusion (Zhong & Leonardelli, 2008), and research suggesting that participants are more likely to be 'nostalgic' on cold days rather than warm days (Zhou, Wildschut, Sedikides, Chen & Vingerhoets, 2012). Similarly, factors such as level of bedroom decoration, level and type of access to plants, level of knowledge about the history of the boarding school, degree of furniture flexibility, or amount of time spent with a pet, could be suitable to targeted qualitative or quantitative studies. Further testing of factors such as these would be useful in measuring the impact of tangible environmental elements on student outcomes, such as feeling a sense of belonging, long term retention, and academic performance. This in turn could lead to assessment of the most effective design strategies based on cost and impact, which was not within the scope of this study.

The voices within this project indicate that physical qualities are important in the development of students' relationship with the boarding school environment, however, the ecological validity of the findings would benefit from further testing in relation to specific cases (Newman, Sachs, Stone & Schwarz, 2019). The problems and ideas expressed by participants could have broader implication for the design of boarding schools and student accommodation generally, but again further research is required to determine how these concepts could be translating between different settings.

The research suggests that while there are many important considerations to be made in the initial design and construction of boarding schools, the potential role of design is not limited to the services provided by professionals. There is also an ongoing opportunity for staff and students to increase sense of belonging through interior design with immediate and low-cost interventions. Many participants emphasised design actions that they could (or do) make themselves to increase their sense of belonging while at boarding school (such as decoration, mapping, gardening, re-arranging furniture etc), in addition to reflections on the permanent characteristics of the architecture. In this way, the interior design of boarding schools may need to be considered not only in terms of major constructions and renovations, but as an ongoing act of self-determination by the student occupants. It is recommended that students generally be afforded more control and freedom over their living spaces (both private and shared) so that their identities and values can be expressed, rather than (only) those of the staff or school. Future actions informed by these findings should, therefore, be considered not only by those formally involved in policy making, school leadership, and in architecture and design, but also by those delivering the day-to-day programming and social environment of residences, including the students themselves.

This way of thinking about interior design could be of benefit not only to Aboriginal students, but to boarding schools and student accommodation in general. The argument of this paper is that where institutionalised (and often high density) housing has reduced the individual voice of residents, the ability to participate in interior design needs to be seen as an important component of occupant wellbeing. Therefore, the potential role of interior architecture in residential education settings may be primarily in the design freedom afforded to students. Consequently, the role and challenge for schools and designers is in the preparation of housing that enables ongoing and evolving change for the occupants.

Conclusion

This research sought to investigate the possible relationship between the interior architecture of current boarding schools and the level of 'belonging' felt by the Aboriginal students who live in them. This project was intentionally focussed at a conceptual level in which broad ideas and reflections from participants could be woven together in a narrative way. These narrative understandings offer a collection of snapshots of boarding school experiences as a component

of education pathways that involve many social and physical transitions. While the emergent themes are far from being able to offer a single design solution or way forward for every boarding school, the participant voices suggest that there is certainly a role for interior design in the delivery of positive boarding school experiences.

The key findings of this project are that:

- Participants characterised the interior architecture of current boarding schools as institutional, square, and structured, which could negatively impact Aboriginal students' sense of belonging.
- Participants proposed increased flexibility and transitional options within the interior architecture to allow for diverse social needs, i.e. avoiding an 'all or nothing' approach to social interaction.
- Aboriginal students require increased access to spaces of cultural and social relief within boarding schools, e.g. third space, counter space, holding space.
- The role of interior architecture in creating a sense of belonging in boarding schools is largely in the ongoing design activity afforded to students.

The Australian Institute of Health and Welfare (2016) states that *"generally, every step up the socioeconomic ladder is accompanied by an increase in health"* (p. 2). However, where increased education opportunities are not partnered with appropriate housing, each step up this ladder may also mean another one (or more) down. The participant voices in this research suggest that organisations concerned with increasing socio-economic opportunities for young people through education must be similarly interested in the associated living environment in which a significant portion of the student's time while be spent. Therefore, a further understanding of education transitions and accompanying living arrangements from a spatial perspective may assist the delivery of increased positive experiences and outcomes for Aboriginal young people.

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