

School of Design and Built Environment

“It would give you a space to be yourself”:

The role for interior design in increasing Aboriginal student sense of belonging in Western Australian boarding schools.

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Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made. This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Human Ethics

The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council National Statement on Ethical Conduct in Human Research (2007) – updated March 2014. The proposed research study received human research ethics approval from the Curtin University Human Research Ethics Committee (EC00262), Approval Number #HRE2017-0803.

Signature:

Date: 18/11/2020

Abstract

Aboriginal and Torres Strait Islander students can have their sense of belonging challenged by pursuing the education opportunity of attending a boarding school. This is exemplified in the current literature through reported experiences of loneliness, isolation, homesickness, and the feeling of being 'between two worlds'. However, there is an absence of research that relates these issues with the established ability for architecture to influence occupant wellbeing. Few studies have focussed on the potential role of interior design in contemporary Aboriginal and Torres Strait Islander experiences of education. The aim of this doctoral thesis was to address this gap through a process of Participatory Action Research (PAR), in which data were collected by yarning and drawing with 27 current boarders (all Aboriginal people, 2 young men, 25 young women), 18 recent alumni (all Aboriginal people, 3 men, 15 women), and 7 boarding staff members (1 Aboriginal person, all women). Four major 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), an 'all or nothing' experience of social connectedness (Interior Architecture as a Social Atlas), the value of student participation in ongoing interior design actions (Spatial Voice), and the need for spaces that offer social and cultural relief (Third Space). From these themes, a new theoretical model for designing belonging is proposed - 'the feedback model'. In this model, the built environment is conceptualised as a reciprocal storytelling tool for messages about identity and belonging. Although only a snapshot of voices is reported, it is proposed that the findings could have broader application to residential education settings.

Attribution of publications

The following research outputs have been generated from work within this thesis.

Peer reviewed journal articles:

Emma Whettingsteel, Rhonda Oliver, Reena Tiwari. (2020). It would give you a space to be yourself: Increasing a sense of belonging for Aboriginal students in boarding schools. *Australian and International Journal of Rural Education*, 30(2), 84-110.

<https://journal.spera.asn.au/index.php/AIJRE/article/view/253>

(Attribution on next page)

Peer reviewed full conference papers:

Emma Whettingsteel. (2020). Interior design is a verb: spatial voice in student housing. *AMPS Parade, Experiential Design – Rethinking relations between people, objects and environments*. Florida State University, Tallahassee.

Emma Whettingsteel. (2019). The Brown Paper Roll: A third space approach to participatory design research. *Annual Design Research Conference*. Monash University. Melbourne.

Other conference presentations:

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Emma Whettingsteel. (2018). How can interior design increase belonging in student housing and make students actually want to live there? *APSAA StarRez Conference; 'Together Towards Tomorrow'*. The Gold Coast, Queensland.

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I acknowledge that these represent my contribution to the above research output.						
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Reena Tiwari	✓			✓		✓
I acknowledge that these represent my contribution to the above research output.						
Signed:						

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About the researcher

I was twenty-three at the beginning of this research and at the time had very little direct knowledge of the inside world of boarding schools. This project emerged through friends' accounts, my social experiences of rural schools and university student housing, and through following the path of existing literature to where I saw there to be a design problem. In doing this research I have reflected a lot on my own experiences with home and education. To provide some context, my sense of belonging is connected with Northampton (known as Mooniemia in Nhanda language, a former lead mine and small agricultural town in Western Australia), the house where I grew up (Willow Gully, a convict built homestead), and Horrocks Beach (named after convict Joseph Lucas Horrocks). I am in the seventh generation of our family to live in this area. My family is entangled with the settlement stories and built environment of these places, so as I continually learn more about this history from an Aboriginal perspective, I am also renegotiating my own sense of identity and belonging there.

My family relocated from Northampton to Geraldton when I started high school, reflecting the common understanding in rural and remote places that some form of relocation may need to be made to pursue secondary education options. Due to this move I did not need to attend a boarding school, but many of my close friends and family members did follow this pathway. After high school I moved to Perth (Whadjuk Noongar land, known as Boorloo) to study fine art, and then interior architecture. My original interest in the design of student accommodation came from living and later working on campus at Curtin University. Through my own experiences of adapting to new social networks I became aware of the important role this plays when moving away from home as a young person.

Alongside my studies and work in Perth I have also worked (through my Mum- Annette Sellers, and Nhanda leader- Colleen Drage) with the Northampton Old School Community Initiative (NOSCI) and its emerging Ku'arlu Mangga Aboriginal Art Centre. This has included running school holiday activities, helping with web and graphic design, and co-developing architecture and design concepts. Through the combination of these experiences I have become passionate about the social impact of design, especially within the context of rural and remote communities.

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Chapter 1. Introduction

Places and space are neither innocent nor neutral.

(Fredericks, 2009, p.10)

This research began with an interest about the role of the built environment in either creating or inhibiting connectedness for residents of student housing. By exploring this topic, an awareness about the important, but often inequitable, experience of sense of belonging in higher education was developed. This particularly affects students who live on-campus for whom their entire social world may be dependent on this setting, who may be far away from home and in a new cultural environment. In exploring this topic further, a second contextual factor emerged for the current study, the challenges to participation in (higher) education for Aboriginal and Torres Strait Islander students. In trying to understand the lower rates of engagement in higher education for Aboriginal and Torres Strait Islander people, it emerged that for those living in rural and remote places this pathway often involves earlier attendance of a boarding school. While boarding schools can be a key stepping-stone to further opportunity, the existing literature demonstrates many challenges to a sense of belonging. This has implications for later tertiary level engagement, but also potentially damages students' health and wellbeing at a deeper level along the way. Therefore, the focus of this research was on how to increase a sense of belonging for Aboriginal young people who live in boarding schools by changing the built environment. This was underpinned by two aims: first, increasing overall engagement and retention, leading to greater participation and success in higher education in the long term; Second, providing students with access to positive health and wellbeing benefits from a sense of belonging - a fundamental human need.

1.1 Background

There is an increasingly broad catalogue of literature concerned with increasing the attraction, participation, and retention of Aboriginal and Torres Strait Islander people in education, evidenced through a recent systemic literature review of over 10,000 academic papers on the topic (Guenther, Harrison, & Burgess, 2019). Within this literature, it has been suggested that 'equitable access to and participation in higher education cannot be addressed without considering the situation in earlier levels of formal education' (Thomas et al, 2014, p. 24). In remote Australian locations, provision

of secondary schools is 'limited or non-existent', complicating students' pathways towards higher education (Guenther, 2017). Guenther & Osbourne (2020) use My School data to estimate 'about 6500 students and their families' face the 'choice-less choice' of pursuing education without a nearby secondary school (p. 111). Further, they estimate '13000 First Nations students and their families face choiceless choice because even though there is a secondary school in their community, the chances of completing are slim' (p. 111). Therefore, 'successful' secondary education for remote living Aboriginal and Torres Strait Islander young people has attracted considerable academic and government attention (Guenther, Disbray, Benvenister & Osborne, 2017, p. 254). It has been proposed that despite billions of dollars of funding spent on attendance strategies, 'by and large, none of these policies, strategies or initiatives has worked' (Guenther et al, 2017, p. 254).

This attention is reflected in national targets to 'Close the Gap', in which it is indicated that achieving Year 12 or equivalent qualifications sets a 'solid foundation' for 'moving on to university or starting a career', but reaching year 12 is often challenging for students from regional and remote areas (Department of the Prime Minister and Cabinet, 2017, p. 44). The Closing the Gap Report 2020 finds that of seven national targets to reduce inequality for Aboriginal and Torres Strait Islander people, just two are on track. One of those two is 'the target to halve the gap in Year 12, or equivalent, attainment for Aboriginal and Torres Strait Islander people aged 20–24 by the year 2020':

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.

(Department of the Prime Minister and Cabinet, 2020,
p. 7)

This goal reflects the high value placed on year 12 attainment as a measure for success, underpinned by the current financial support for boarding school attendance. However, while the total Year 12 attainment rate for Aboriginal and Torres Strait Islander students is reported to have increased by 21 percentage points (45 per cent in 2008 to 66 per cent in 2018–19), this increase is only reflective of metropolitan data:

In 2018–19, the gap in Year 12 attainment rates was narrowest in Major Cities (around 6 percentage points) and widest in Very Remote Australia (around 52 percentage points). Between 2012–13 and 2018–19, the gap between Indigenous and non-Indigenous Australians widened in all areas, except for Major Cities.

(Department of the Prime Minister and Cabinet, 2020,
p. 60)

From this national research and dialogue, boarding schools continue to emerge as a 'feasible' option for remote students to access a secondary education (Guenther et al., 2020). In addition to economic viability, this approach is supported by the notion that students can gain 'human, cultural and social capital' which will afford them the chance for success 'in two worlds' (Guenther et al., 2017, p. 262; Mander, 2012; Tamisari & Milmilany, 2003; Pearson, 2005; 2009, p. 1). Of the 'approximately 21,000 students in Australia who access their secondary schooling away from home' each year (McCalman, Benvenister, Wenitong, Saunders and Hunter, 2020, p. 1), over 5,000 were Aboriginal and Torres Strait Islander young people in 2017 (Department of Human Services). These figures reflect the observation that 'for many remote students, boarding school is an important 'step' in the educational pathway' (Guenther et al., p, 256). However, research shows that there are many challenges and sacrifices that accompany this pathway.

For Aboriginal and Torres Strait Islander young people, attending a boarding school often comes with a loss of a sense of belonging. The common challenges of dislocation and a feeling of 'not fitting in' at boarding school have now been extensively documented (for example, Mander, 2012; Benvenister, 2015; O'Bryan, 2016; Bobongie, 2018; Rogers, 2018; Redman-MacLaren et al., 2019). This is attributed to the extreme change in social and physical environment for many remote Aboriginal and Torres Strait Islander students, a lack of a familiar support network, and a significant change in learning structure. It is a similar situation when students transition from a small rural primary school to a large city high school (Thurbon and Walton, 2012). These experiences may be shared by any young person who leaves home to live in a boarding school. However, for Aboriginal and Torres Strait Islander

students this can be at the expense of existing sense of identity, connection with family, cultural roles, and community life in general (Mander, 2012; Benvenister, 2015; O'Bryan, 2016; Bobongie, 2018; Rogers, 2018; Redman-MacLaren et al., 2019). This presents a dilemma between education participation and sense of belonging for Aboriginal and Torres Strait Islander young people.

The identity tension experienced by remote Aboriginal and Torres Strait Islander students in boarding school has been characterised as a 'pull' between opportunity and identity. It is 'often the reason given for Indigenous students dropping out of boarding school' (Rogers, 2017). This can be further exacerbated by the view of boarding schools by some families that they are 'the only option available' for completing secondary school (Mander, 2012, p. 4), who may fear the opportunity will give students a 'one way ticket' out of communities that will therefore not be benefitted by the education (Pearson, 2009b, p. 292). As found in Smith's (2009) report to the United Nations on the topic of Indigenous boarding schools, 'there is still a concern among many indigenous peoples that the purpose for indigenous boarding schools is to further the cultural eradication and assimilation of indigenous peoples' (p. 46). Similarly, there is a view that attending boarding schools can be damaging for students who have their expectations raised by the opportunity and then experience academic and social challenges. In some cases, this negative experience may be more harmful to a young person's relationship with education than if they had not left home in the first place. For example, O'Bryan and Fogarty (2020) report that 'it's a shame job to go back into school, so they just disengage' (p. 73).

While boarding schools are increasingly central to secondary education pathways for remote students, the current literature makes clear that outcomes are 'mixed' and this is a 'complex space' requiring 'careful consideration and implementation, rather than simple solutions' (Guenther, et al., 2020, p.14; Guenther et al., 2017, p. 262). It has been suggested that while there are now over 40 peer reviewed academic papers concerning the issues faced by Aboriginal and Torres Strait Islander students who attend boarding schools (Guenther, et al., 2020) there is not enough research to evaluate boarding school programs, which require 'follow-up of students and their eventual outcomes' (Guenther et al., 2017, p. 262). While there is an increasing body of work to highlight many potential factors for the 'success' or otherwise of boarding schools as an option for Aboriginal and Torres Strait Islander young people, so far none of these has focussed specifically on the role of place and built environment.

The relationship between the design of built environments (of which interior design is a component) and the impacts on social sustainability (Smith, Lommerse & Metcalfe, 2014), mental health (Núñez-González, Delgado-Ron, Gault, Lara-Vinueza, Calle-Celi, Porreca & Simancas-Racines, 2020), and physical wellbeing (Butterworth, 2000) are widely reflected on in the existing literature. The important role of the design of housing is further evidenced by its frequent citation as a key determinant of health (for example Gelormino, Melis, Marietta & Costa, 2015). There is also an increasing body of academic literature pertaining to Aboriginal and Torres Strait Islander architectural concepts (for example Memmott and Keys, 2017; Grant and Greenop, 2018; Kiddle, Stewart, & O'Brien, 2018). However, little research unites these areas of knowledge with the student housing typology generally, and none to bring these factors together in relation to the design of boarding schools. To address these gaps, this project explored the potential role of interior design in increasing a sense of belonging for Aboriginal students while living in Western Australian boarding schools.

Note here that there were no Torres Strait Islander participants in this study, and so the term 'Aboriginal' is respectfully used as the identifier when speaking in relation to participants of this research (language choices are explained further in 1.8).

1.2 The research problem

Recent research concerning the experience and impacts of boarding school for Aboriginal and Torres Strait Islander students makes clear that the provision of scholarships alone 'is not all that is required to bring about socially just outcomes' (O'Bryan, 2016, p. 180). Further, it has been established that when these scholarships are offered, it is necessary to 'provide a culturally safe environment for those students' (Macdonald et al, 2018, p. 207). Without this action, Rogers (2018) suggests boarding schools can lead to many students being 'isolated in a system that was never built for them' (p. 219), and 'above all, Indigenous student voices must be included in any work undertaken on Indigenous boarding' (p. 222). This is important, but complicated to apply in practice for architects and designers who (due to factors such as distance, the continual turnover of students, issues gaining access to schools, lack of research experience, or lack of time) may not have direct access to the student communities affected by their decision making. Therefore, the 'problem' this research addresses is in how to design a culturally safe living environment for Aboriginal and Torres Strait

Islander students that contributes to their sense of belonging, as directed by their own voices and ideas.

It is important to reiterate that this research was concerned with design rather than education policy, it is not positioned to argue for or against the use of boarding schools for the secondary education of remote Aboriginal and Torres Strait Islander students. Similarly, it was not the purpose of this research to delve into a sociological analysis of belonging or boarding schools. Rather, the purpose is to acknowledge this as a growing trend, but one which is not currently well understood or designed for from a built environment perspective. The hypothesis is that positive outcomes (be they academic, social, mental, or physical) may be improved through increased consideration of the impact of design. The focus here is on physical design, meaning any social aspects related to behaviour that are studied here are considered only in relation to the physical design of the environment.

1.3 Research question and objectives

Using a sense of belonging as the key measure for success, the research question for this PhD was:

How can interior design increase a sense of belonging for Aboriginal young people living in Western Australian boarding schools?

In order to answer the research question, the following objectives guided the project:

- (1) To examine the concept of 'belonging' as a tool for evaluating the design of residential education settings;*
- (2) to identify elements of the interior design of Western Australian boarding schools which affect Aboriginal students' sense of belonging;*
- (3) to propose a strategy for the interior design of future boarding schools that may encourage an increased sense of belonging.*

1.4 Research methodology

In Australia, Indigenous outcomes are almost always compared to non-Indigenous outcomes, and measured using Western or non-Indigenous measures of success.

(Rogers, 2018, p. 216)

This research was guided by a Participant Action Research (PAR) methodology, which allows for a cyclical and reflective practice of 'humility, inquisitiveness, and openness' while engaging with the community in focus (Wright, Lin & O'Connell 2016, 83). In this way the project and the design ideas of the participants developed in a responsive and iterative way, as is appropriate for research with both Aboriginal communities and with young people. PAR in this project acknowledged the alternative world views of different students and recognised that space is not culturally neutral which, therefore, can be exclusive to some groups (Weisman, 1992) - in this case Aboriginal students.

Under the direction of an Advisory Group, a participatory method was developed that combined semi-structured yarning with unstructured drawing around a continuous roll of brown paper. The semi-structured prompts were informed by ways in which belonging can be impacted by interior architecture, as identified in existing literature. These components – place identity, place attachment, collective memory, spatial knowledge, physical comfort and environmental symbols – guided the yarning sessions, however, they did not restrict other themes from emerging. A continuous roll of brown paper was a supplementary point of focus for yarning, a deliberate choice to facilitate a sense of connection between otherwise separate groups (and locations) and one which allowed student participants to engage in the search for thematic threads. Over time, the continuous roll of paper helped to reduce participant apprehension in drawing as it is was visible through previous markings that there was no expectation of any special skills.

Data were analysed first through ongoing reflection by participants within the yarning and drawing sessions. This was done iteratively by identifying emerging themes then matching these with previous analytic decisions and categories. These were revised

as necessary in a process aligning to one of constant-comparison (Hewitt-Taylor, 2001). Secondly, a thematic analysis - with added participatory measures - aligned with the six stages proposed by Braun and Clarke (2006), was conducted.

A 'third space' theoretical lens was used to make sense of various aspects of the research design and analysis, aligning with a constructivist epistemology and Lefebvre's (1991) understanding of lived experience as an interaction of 'perceived' (first space) and 'conceived' (second space) to produce the 'lived' (third space).

1.5 Significance

For First Australian students to leave home and attend boarding school is by no means a new phenomenon, but the outcomes they achieve remain poorly understood.

(O'Bryan, 2016, p. 311)

In an education context, sense of belonging has been shown to be a major force in the decision making of young people. The level to which students feel they 'fit in' has been reported as a stronger predicting factor for engagement and success in education than academic (Morison, Carlin, Clarke, Lukas & Wilson, 2013), financial (Kaushal, 2020), or health factors (Giles, Glonek, Luszcz, & Andrews, 2004). Experiences of bullying and teasing can be predictive of dropout rates (Crosnoe, 2011; Cornell, Gregory, Huang & Fan, 2013; Miranda, 2013), while quality relationships with staff, peers, and family within schools are identified as key for promoting student wellbeing (MaCalman et al., 2020). These links will be explained further in Chapter 2. The most recent Programme for Student Assessment (PISA) shows Australian students are experiencing declining levels of sense of belonging, with a drop from 88% to 72% agreement with the idea that they 'feel like they belong in school' (De Bortoli, 2018). For Aboriginal and Torres Strait Islander students there was a 24-percentage point decrease in agreement with this statement over the same period. Overall, Australian students experience 'significantly poorer sense of belonging at school' compared with their counterparts in 37 countries within the Organisation for Economic Co-operation and Development (OECD).

Our understanding of the experience of boarding school for Aboriginal young people is increasing through a small, but growing body of literature. However, it is explicitly acknowledged in this literature that more research is needed pertaining to experience and outcomes for Aboriginal and Torres Strait Islander students who attend boarding schools (Mander, 2012; Cuerver et al, 2015; Stewart, 2015; Rogers, 2015a; 2015b; 2016; Bobongie, 2017; Gunether et al., 2017). Rogers (2015) states 'the study of boarding schools in Australia has been extremely limited' and 'there is a paucity of research concerning Indigenous peoples experience in boarding schools, not only within Australia but across the world' (p. 2). Mander (2012) similarly emphasises that 'a paucity exists in research specifically exploring the transition experience to boarding school contexts for Aboriginal students' (p. 73).

There remains an absence of research to unite this work with spatial theories such as environmental psychology, place relationships, architectural anthropology, and design thinking generally. There are many potential intersections between interior architecture discipline knowledge and the current focus on policy, education, and psychology within the existing research about Aboriginal and Torres Strait Islander student experiences of boarding school. Helm and Lamb (2011) suggest that closing the school completion gap is a 'major national challenge and will require effort in a range of related areas, not just in schools' (p. 12). They relate success in this challenge to improvement in other socio-economic entities such as 'health, nutrition, housing and employment' (Lamb & Helm, 2011, p. 12). This research contributes to this improvement through the introduction of an architecture and design perspective to the current dialogue.

1.6 Ethical issues

The research study was approved by the Human Research Ethics Office of Curtin University (approval number HRE2017-0803) on 15-Nov-2017. Participation by individual students, past students, and boarding school staff was on a completely voluntary basis. Participants were provided with an information sheet describing plainly the purpose of the study and stated that participants could withdraw from the study at any time without subjecting themselves to any disadvantage, penalty or adverse consequence.

The AITSIS Guidelines for Ethical Research in Australian Indigenous Studies was used as an ethical guide across all aspects of the research project. The guidelines make clear that due to the 'inherent right' of Aboriginal and Torres Strait Islander people to self-determination, 'it is essential that Indigenous people are full participants in research projects that concern them' (AITSIS, 2012, p. 3). In extension of this, research must be founded on a 'process of meaningful engagement and reciprocity', while recognizing there is 'no sharp distinction' between researchers and Aboriginal and Torres Strait Islander people, who are also researchers and equal partners in the engagement (AITSIS, 2012, p. 3).

In response to principles relating to consultation and negotiation, the researcher continually made efforts to 'identify appropriate individuals and communities to consult', particularly those who 'have made an important contribution in relation to the research topic' as well as relevant Indigenous 'regional, local and community' organisations that can help the researcher 'observe appropriate community values, norms and protocols' (AITSIS, 2012, p.9). This led to the formation of an Advisory Group that provided feedback and advice about the research project, especially in the formative stages and during participant recruitment. The Advisory Group consisted of relevant boarding school community members, academics, and Aboriginal people with lived experience of boarding schools. The panel acted as an ongoing critical body to critique proposed research strategies to provide cultural and community relevant insights. The formation of this group of advisors is given more detail in Chapter 3.

As research was not conducted on Department of Education sites, an ethics approval process for external researchers for this sector was not done. Support was obtained from the Association of Independent Schools Western Australia (AISWA) and the principals of participating schools as appropriate. This support was reflected by representation from AISWA in the Advisory Group. Participants were recruited by word of mouth from members of the Advisory Group, and through the social networks of the organisations they were associated with.

As outlined by the *Australian National Statement of Ethical Conduct in Research Involving Humans*, all digital data collected in association with this research has been stored securely and will be kept for 7 years from the date the youngest student participant turns 18 (Appendix L).

1.7 Organisation of the thesis

This thesis is divided into nine chapters. These are summarised in Table 1 and explained below in further detail.

Table 1: Organisation of chapters

Chapter of this thesis	Part of a research report
Chapter 1: Introduction	Introduction
Chapter 2: The spatial dimensions of belonging in boarding school	Literature Review
Chapter 3: Methodology and methods	Methodology
	Methods
Chapter 4: Place Identity	Findings
Chapter 5: Social Atlas	
Chapter 6: Spatial Voice	
Chapter 7: Third Space	
Chapter 8: Bringing it all together with a feedback model for belonging	Discussion
Chapter 9: Conclusion	Conclusion

Chapter 1: 'Introduction' is an introductory chapter which describes the general context to the research and outlines the overall structure of the project.

Chapter 2: 'The spatial dimensions of belonging in boarding school' reviews and critiques the existing literature relating to social and spatial dimensions to the research topic. This includes the role of a sense of belonging in education settings, the context of boarding schools in Western Australia, and contemporary challenges to belonging faced by Aboriginal and Torres Strait Islander students in Western Australian boarding schools. The spatial dimensions to belonging are then described with reference to previous studies in areas such as environmental psychology and architectural

anthropology. A framework for measuring a sense of belonging as a result of the literature review is proposed.

Chapter 3: 'Methodology and methods' describes the considerations and procedure for data collection. This includes the choices that led to the use of a qualitative approach, a review of Third Space theory as a conceptual tool for research involving Aboriginal and Torres Strait Islander young people, the adoption of a Participant Action Research methodology, and the procedure for data collection and analysis.

Chapter 4: 'Place Identity' is the first of four findings chapters. This chapter presents findings relating to the overarching theme of 'Place Identity' with participant voices. This chapter deals with the overall characterisation and associations by participants with their boarding schools. The chapter is organised into subthemes in the order of: 'Home', 'First impressions', 'Intangible associations', and 'Institutional character'.

Chapter 5: 'Social Atlas', describes the social relationships facilitated by the interior design of boarding schools, going beyond the (sometimes) vague associations with boarding school architecture, and into the students' more tangible lived experience of its social world. To imagine it from the perspective of the students, Chapter 5 deals with questions of; 'What is the social situation here?', 'How do I fit into it?', 'How do I manage the times I need privacy with the times I need to feel connected with other people?'. This is presented in the order of 'Navigating togetherness', 'Creating a map', and 'Ideas for an atlas typology'.

Chapter 6: 'Spatial Voice' brings the focus to individual student experience, describing the potential role of every day interior design as a way to have a voice in boarding school spaces. Themes in this chapter respond to questions such as 'Does this space reflect who I am?', and 'Does it support the activities that help me to feel a sense of belonging?'. This chapter describes the role of ongoing design and spatial action by boarding school occupants in their feeling a sense of belonging. Themes are related to the idea that affording students with greater control over the design of their living environment will increase their overall sense of belonging there. This is presented in the order of 'Participation', 'Responsive Environment', 'Self-expression'.

Chapter 7: 'Third Space' presents themes relating to the physical experience of 'Third Space' through two sub-themes of 'Transition' and 'Ownership'. Here, participant

perspectives are presented on how sense of belonging can be a challenge when there is too much or too little distinction between personal and school life. This idea was also related to cultural safety, and a reported lack of space in which Aboriginal students felt they could switch off and be themselves.

Chapter 8: 'Discussion: Bringing it all together with a feedback model for belonging' describes the key thematic findings of the research within a broader theoretical context. This chapter presents the main limitations of the project, the relationships between key themes in the data with existing literature, reflections on the role of third space in boarding schools, how the 'brown paper roll' functioned as a third space, and finally, a proposal for a feedback model to design for sense of belonging.

Chapter 9: 'Conclusion' is a summary of the findings and their implications for practice. This chapter reflects on the research question and objectives and suggests possible directions for further research.

1.8 Notes on language choices

As is suggested by the AITSIS (2012) guide to ethical research, 'Aboriginal and Torres Strait Islander' has been used as the default identifying term in this thesis when referring to trends and broad themes within Australia.

In this study, (with the exception of non-Aboriginal boarding school staff) participants identified as Aboriginal, with none being from the Torres Strait region. The term 'Aboriginal' is, therefore, respectfully used in reference to participants and themes specific to the current study. This is also aligned with the more common use of the term 'Aboriginal people' in Western Australia (Oliver & Exell, 2020).

In reference to international trends and literature, the term 'Indigenous' has been used as the default identifier unless otherwise specified by the referenced author.

When quoting directly from authors or participants, their choice of language was retained. For example, participants referred to themselves, peers, and communities in a variety of ways throughout the study, including 'Aboriginal', 'Indigenous', 'Black', 'Kimberley kids', by location, for example 'Fitzroy mob', or by language group, for example a participant introduced herself in the following way:

I'm Koori from New South Wales, but born and raised here in Perth on Noongar land.

(Staff B 01)

Use of the phrase 'young people' is also an intentional choice over other available descriptors such as 'youth', 'children', or 'teenagers'. In line with this, the terms "young women" and "young men" were used as descriptors instead of 'girls' or 'boys'. These choices acknowledge that Aboriginal young people often hold more senior status and responsibility in their home communities than that which they are afforded in a western school context. There is also a high level of independence and autonomy inherent in living away from home, and so this was considered to be the appropriate description.

Chapter 2: The spatial dimensions of belonging in boarding school

Houses alone do not a community make.

(Oldenburg, 1999, p. 4)

2.1 Introduction

This literature review begins weaving together the social and spatial dimensions of the research topic in response to the first two research objectives:

- (1) To examine the concept of 'belonging' as a tool for evaluating the design of residential education settings;*
- (2) To identify elements of the interior design of Western Australian boarding schools which affect Aboriginal students' sense of belonging;*

The social dimension of the review is concerned with defining a sense of belonging and its role in an education context, relating this to Aboriginal conceptions of belonging, and contemporary boarding school experiences for Aboriginal students. The second dimension - the 'spatial' - draws on interior architecture discipline knowledge, such as environmental psychology and place theory. Through this review, the potential role for interior design in facilitating or prohibiting sense of belonging is illustrated. In the context of boarding school experiences, O'Bryan (2016) suggests that where 'transition' refers to a spatial experience, 'belonging' allows for examination of 'the nature and quality of social relationships' (p. 150). This review explores existing theory to bring these dimensions together.

In this chapter, precedent is established for each element of the research question:

How can interior design increase a sense of belonging for Aboriginal students living in Western Australian boarding schools?

This addresses several assumptions: that a sense of belonging matters in the first place, that a particular way of designing space could increase a sense of belonging, and that there could be benefits to increasing a sense of belonging for Aboriginal students in boarding schools that would make doing this worthwhile. Accordingly, the

literature review has been organised in relation to these key notions, in the order of 'Social dimensions of belonging', 'Spatial dimensions of belonging', and 'Boarding schools as a typology'. To bring this all together, 'The useful concept of third space' explains theories used to bridge social and spatial intersections within the study.

2.2 Social dimensions of belonging

*Ontological belonging means that Indigenous people
have a spiritual sense of belonging to land/country.
Colonisation has not destroyed this relationship.*

(Dudgeon et al., 2006, p. 403)

Sense of belonging is entangled with social and spatial factors. In an Aboriginal and Torres Strait Island context, this should first be understood in relation to the significance of Country as a living force that 'gives and receives life', it is not 'imagined or represented', rather, 'it is lived in and lived with' (Rose, 1996, p. 7). Country is 'home, and peace; nourishment for body, mind, and spirit; hearts ease' (Rose, 1996, p. 7). This has also been highlighted by thematic findings of *Footprints in Time: The Longitudinal Study of Indigenous Children*, in which first wave data 'affirmed the relationship between culture, country and family' (Dockery & Colquhoun, 2012). As described by Dudgeon, Wright, Paradies, Garvey and Walker in 'Working Together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice' (2014), 'land was not owned; one belonged to the land' (p. 4). This means that 'sense of self, home and belonging to place' are enmeshed (p. 4). The social and spatial connections between sense of belonging and connection to Country have been widely documented, as have the implications of this relationship for Aboriginal people's physical and mental health.

The intrinsic relationship between belonging and wellbeing for Aboriginal and Torres Strait Islander people has been negatively impacted by colonisation and assimilationist policy. Aboriginal peoples' health 'inevitably relates to colonisation, history, racism and social factors', underpinned by loss of essential connections to culture, spirituality, ancestry, family and community (Swan & Raphael, 1995). In 'Bringing them Home: Report of the National Inquiry into the Separation of Aboriginal and Torres Strait Islander Children from Their Families' (1997), this loss is explicitly

and extensively documented. The report outlines the 'overwhelming majority' of Aboriginal and Torres Strait Islander children that were forcibly removed from their families, and in turn 'separated from their Indigenous family, community and culture' (Australian Human Rights Commission, 1997, p. 133). This has damaged social and physical wellbeing for many Aboriginal people by disrupting the 'unique status' and 'kinship and community relationships' that make up sense of belonging (Dudgeon et al, 2014, p. 105). This is important context for the current study, as the focus is on settings in which Aboriginal and Torres Strait Islander young people are separate from their families and communities, a disruption to the social frameworks which inform sense of belonging.

2.2.1 The benefits of belonging

Broadly, feeling a sense of belonging is a human need attributed to the evolutionary necessity to work in groups for survival (Baumeister & Leary, 1995). The critical role of sense of belonging for physical and mental health is widely established. Social connectivity has been found to be associated with longer lifespan (Giles, Metcalfe, Glonek, Luszcz, & Andrews, 2004), higher levels of resilience and reduced stress (Ozbay, Johnson, Dimoulas, Morgan, Charney, & Southwick, 2007), greater perceived meaning of life (Lambert, Stillman, Hicks, Kamble, Baumeister, Fincham, 2013) and overall happiness and wellbeing (Baldwin & Keefer, 2019). The 'village effect' of high levels of sense of belonging and social connectedness has been associated with the longer and happier lives of residents within 'longevity hotspots', such as Sardinia, Italy and Okinawa, Japan (Pinker, 2014). Sense of belonging has also been shown to be 'good for business' in a recent publication for Forbes Business Council (Kaushal, 2020). In short, sense of belonging makes us happier, healthier, and more likely to succeed.

Further, the need to belong transcends the social preferences associated with individual personality types, such as introversion or extroversion. Current literature suggests that personality 'types' are typically flexible and situational, rather than fixed, and that most people gain restorative 'energy' from quality social interactions (Fleeson, Malanos & Archille, 2002).

2.2.2 The risks of not belonging

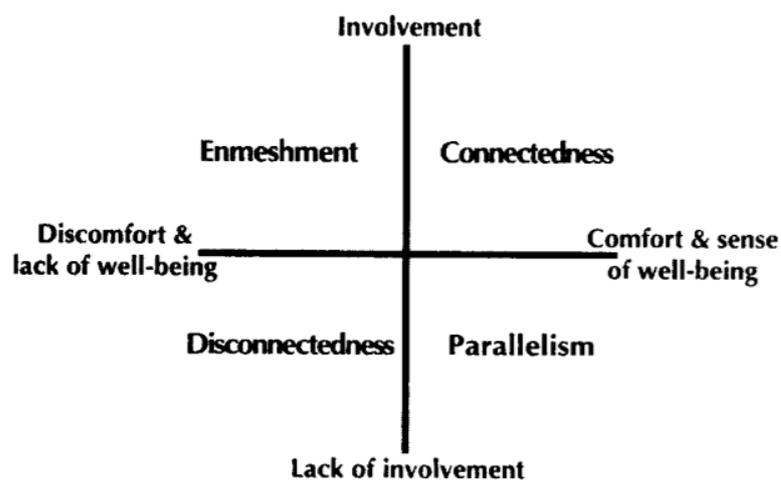
Belonging has been described as the 'quantity and quality of interpersonal relationships', comparatively social isolation is the 'lack of engaging social network with peers who share or partly share one's concerns or view of the world' (Sawir, Marginson, Deumert & Nyland, 2008, p. 152). Social isolation can include feelings of 'loneliness, anger, despair, sadness, frustration, or, in some cases, relief' (Biordi & Nicholson, 2008, p. 87). While isolation and 'alone-ness' are not necessarily negative experiences (for example, solitude and privacy can sometimes be desirable), when the demand for social contact exceeds the capability of the individual's situation, isolation can become entangled with alienation, loneliness, and stigma, which can damage sense of belonging (Biordi & Nicholson, 2008). In turn, this can severely impact overall motivation and ability to cope with stress (Biordi & Nicholson, 2008; Sawir, et al, 2008).

The literature shows that perceived social exclusion causes a drop in self-esteem that has two evolutionary functions. First, as a mechanism to warn the individual about their possible change in social status, and second, as a motivating force to restore social status or form new connections (Kurzban & Leary, 2001). In line with this, there is research to suggest that the emotional 'pain' experienced during social rejection is not just a metaphor, but is 'analogous in its neurocognitive function to physical pain' (Eisenberger, Lieberman & Williams, 2003, p. 292). Similarly, MacDonald and Leary (2005) propose that 'threats to one's social connections are processed at a basic level as a severe threat to one's safety', due to the evolutionary enmeshment of social adaptations upon pre-existing pain systems (MacDonald & Leary, 2005, p. 202). This illustrates the important biological role of sense of belonging for human survival and highlights the serious problem for people who navigate ongoing sense of exclusion and alienation, which can be understood as 'social pain' (MacDonald & Leary, 2005).

It should be noted here that social connection is not synonymous with sense of belonging. While the two are connected, the former is a quantifiable state that can be objectively measured, and the latter relates to individual evaluation of perceived comfort, connectedness, and 'fit' within a social environment. Hagerty, Lynch-Sauer, Patusky and Bouwesma (1993) propose that sense of belonging is a process for human relatedness 'with others, objects, environments, society and self' (p. 291). As shown in Figure 1, there are multiple ways for an individual to be (un-)connected with

their surroundings, which requires a combination of both involvement and wellbeing (Hagerty, et al., 1993). The authors of this model suggest that connectedness involves more than just proximity, but also ‘reciprocity, mutuality, and synchrony’ (p. 291). This distinguishes sense of connectedness from amount and frequency of connection, showing that it is possible to be highly connected in a ‘parallel’ or ‘uninvolved’ way with social surroundings, and not feel a sense of belonging. This is a key point for this area of research with methodological implications, in that social connectedness could be numerically measured, for example by counting number of daily social interactions, a person’s number of Facebook friends, or from the number of people living in someone’s house. However, higher numbers in these indicators may not correlate with perceived sense of belonging. This indicates that sense of belonging must be evaluated subjectively by individuals.

Figure 1- 'States of relatedness', Reproduced from Hagerty et al, 1993



In summary, the human need to belong has deep evolutionary roots that transcend factors such as personality, culture and environment. However, it can manifest in a variety of individually and subjectively defined ways that do not correlate with a universal quantity or type of social connectedness. Humans are neurologically wired to relate their perceived sense of belonging with existential and physical safety, highlighting the ‘multiple ways in which our minds and bodies are inherently regulated by our social world’ (Eisenberger, 2015, p. 623). This indicates that level of engagement with social environments, such as schools, may be affected by perception of inclusion or exclusion.

2.2.3 Belonging and education

Children who experience a sense of relatedness have a stronger supply of inner resources. They perceive themselves to be more competent and autonomous and have higher levels of intrinsic motivation.

(Osterman, 2000, p. 343)

Sense of belonging has been recognised as an effective way to understand the lived experiences of young people. Baumeister and Leary (1995) propose sense of belonging as a concept through which to integrate human behaviour theories (p. 497). Since this work, sense of belonging has been used as a way to make sense of young people's ongoing navigation of the 'people, places and issues that matter to them', within the context of 'the times in which they live' (Cuervo et al., 2015, p. 5). Although there is a common belief that elderly people are most at risk of experiencing loneliness, young people have actually been shown to be more affected (Swan, 2016). Further, it is suggested that sense of belonging is increasingly supported in the academic literature as 'a key antecedent to understanding the degree to which young people feel alienated or connected with education' (Mander, 2012, p. 67). For Aboriginal students, a better understanding of 'belonging' and how this feeling is constructed may allow the 'constellation of spheres of life' for to be 'assembled' by researchers (Cuervo et al., 2015, p. 24).

More specifically, sense of belonging helps to understand contemporary youth transitions in an education context. Perceived 'degree of fit' by students within the school social environment has been highlighted as a key determining factor in students' decision to remain in education institutions or not (Beal & Noel, 1980). Links have been suggested between belonging, personal development, and academic success, showing a sense of belonging as a core component for ensuring that students 'persist and succeed' with their education (Morieson, Carlin, Clarke, Lukas & Wilson, 2013). Overall, the theme from the current literature is that if students feel they belong this has the potential to improve their wellbeing, retention, engagement and overall educational outcomes.

Feeling a sense of belonging may be difficult for students who relocate from places where their experiences and culture differ considerably from the new environment. A sense of belonging and 'fitting in' may often be considered more important than

academic goals by students, with some studies indicating that perceived prevalence of bullying and teasing can be predictive of dropout rates for adolescents (Crosnoe, 2011; Cornell, Gregory, Huang & Fan, 2013). This may be exacerbated by a change in learning structure, for example from a small rural primary school to a large city high school, or from the discipline of senior high school to the autonomy of university (Thurbon & Walton, 2012). While navigating this change students must also manage complex new experiences whilst relying on an unfamiliar support network. The combination of these factors poses a significant disruption to their sense of belonging.

It follows then that sense of belonging is important for all students. However, it is currently not experienced equally in Australian schools. The 2018 PISA survey of 14,530 Australian 15-year-olds, including 2807 Aboriginal or Torres Strait Islander students, by the Australian Council for Education Research (ACER) found that:

Students who are Indigenous, female, Australian-born, in the lowest socioeconomic status (SES) quartile or living in provincial and remote areas felt the least sense of belonging in school.

(Thomson, De Bortoli, Underwood & Schmid, 2019, p. 1)

On the other hand:

First-generation and foreign-born migrants, and students who are male, metro-based or belong to the highest SES quartile reported the greatest sense of belonging.

(p. 1)

These findings have direct implication for remote Aboriginal and Torres Strait Islander students who attend metropolitan boarding schools. In this situation, students with many (or all) demographic predictors for experiencing the least sense of belonging are immersed in an environment in which they are the minority compared with students likely to feel the greatest sense of belonging, further exacerbating the difference in experience. As will be discussed later in this chapter, attending a boarding school can be the first time that remote Aboriginal and Torres Strait Islander students are a minority within their school community.

Sense of belonging is impacted by continual assessment of signs of inclusion or exclusion in the environment. When perception of sense of belonging is low this can create increased sensitivity to environmental signs that further confirm this perception, initiating a cycle of negative feedback based social and physical environmental clues. This has direct implication for the current research, in that the community in focus (remote living Aboriginal young women) tend to experience lower levels of sense of belonging in school already. They are then immersed in an environment in which the clues and signs for belonging have not been designed for their inclusion.

2.2.4 Measuring sense of belonging

This leads to the larger question of how to measure a sense of belonging. This section presents tools and considerations for recording peoples' evaluation of their belonging, or 'fit', with an environment. In other words, how does this subjective internal process of production translate to existing research methods? It is proposed by Malone, Pillow and Osman (2011) that 'despite the strong emergence of belongingness as an explanatory construct in psychology, the empirical development of valid measures to assess one's general sense of belonging has not yet received the same attention' (p. 311). Further, emerging research suggests a need to critically evaluate the 'relevance and comprehensiveness' of self-report survey instruments in measuring subjective experiences (Klem et al., 2020, p. 10). Some of the commonly used survey instruments are summarised here in order to provide context for the choice in this study to pursue a qualitative approach to measuring and discussing sense of belonging in boarding school.

There are many existing methods for measuring a sense of belonging, the most common being the Sense of Belonging Instrument (SOBI), developed by Hagerty and Patusky (1995). This instrument has been used in a diverse range of research projects such as the effects of sense of belonging on innovation (Ozsungur, 2020), the relationship between sense of belonging and emotional safety in school environments (Shean & Mander, 2020), and the effects of COVID-19 on levels of trust and wellbeing (Sibley, Greaves & Satherley, 2020). The instrument uses self-evaluation surveys to rank participant identification with phrases such as 'describe myself as a misfit', 'piece of a jigsaw puzzle', 'observe life rather than participate' and 'feel like an outsider' (Hagerty & Patusky, 1995, p. 9). While this tool seems to be effective in capturing individual motivations for belonging, the 'internal consistency' and 'construct validity'

is reflected on by the original authors as unresolved and requiring further testing (Hagerty & Patusky, 1995, p. 9). While this testing has since occurred, the level to which the tool is considered internally valid is mixed. There is also a lack of research which relates data from this tool with findings from qualitative methods, such as those that are participatory, visual, and open-ended, to determine perceived credibility by the communities in focus.

Other tools include the Psychological Sense of School Membership scale (PSSM) (Goodenow, 1993), the General Belongingness Scale (GBS) (Malone, Pillow & Osman, 2011) and the Simple School Belonging Scale (SBSS) (Whiting, Everson & Feinauer, 2017). Like the SOBI, these tools provide predetermined statements on a Likert-type scale. Although these instruments are widely cited as having high levels of validity and consistency, as with SOBI, there are some limitations acknowledged by the authors. For example, in an investigation of the perception of school belonging for Latino students in North America using this method, issues of consistency and validity were identified (Henchy, Cunningham & Bradley, 2009). The predetermined statements were identified by the authors as problematic, with items being either too easy for students to endorse or too complicated and, therefore, sometimes misinterpreted. For example, endorsement of the statement 'I can be myself at school' may not reflect the factors that contribute to or challenge this feeling, or allow for the different spaces and situations that may produce different signs of social information. Perhaps they are themselves, but still do not fit in (Henchy, Cunningham & Bradley, 2009). Similarly, the question 'how often do you feel the teachers care about you?' quantifies a subjective feeling concerning what care is and how it is perceived by each individual student. This statement also assumes that frequency of a feeling predicts its strength. Perhaps a very meaningful gesture of care was made once, but not every day. The authors concluded that the wording of questions needed further refinement to reduce outlying data, which they interpreted as resulting from student confusion. They suggest that statements should be more difficult for students to endorse to increase variation of responses (Henchy, Cunningham & Bradley, 2009).

Issues of misinterpretation, disengagement with questions and outlying data are identified across studies attempting to measure a sense of belonging using quantitative self-report tools. This is possibly due to the inability for these methods to account for the nuance of how sense of belonging is constructed in ways that may not fit within the method. Each participant may have a different perception of the definition

and signals for sense of belonging. This is especially relevant for situations where there are significant differences between the researcher and participants, such as in age, gender, and culture.

In relation to place and the built environment, quantitative measures have been described as 'little-suited for measuring what the places mean' (Lewicka, 2011, p. 221). On their own, they do not allow for participants to explain the context and stories that may offer greater insight and facilitate richer engagement with the study. Themes from the current literature suggests that it may be beneficial to measure associations and indicators of belonging, rather than sense of belonging directly. For example, in self measurement tools reference statements such as 'I feel that I am a member of the [blank] community' and 'other students take my opinion seriously' offer a specific indicator to which participants can respond with increased clarity, therefore containing 'stronger face validity' than a broader 'do you feel that you belong?' (Mahar, Cobigo & Stuart, 2014, p. 22). While this is found to be a successful strategy in increasing the meaningfulness of responses, it still does not take into consideration that indicators of belonging will be varied between individuals, and are not able to be accurately predicted by researchers of entirely different circumstances.

It seems from these studies that there is an inherent difficulty in measuring sense of belonging in a standardised way, as it is dependent on individual definitions and experiences. To assign measurable characteristics to a sense of belonging is potentially arbitrary if these characteristics are not meaningful to participants. Therefore, there is a risk of creating inconsistent and superficial data that does not accurately reflect the lived experience of the community in focus.

2.3 Spatial dimensions of belonging

In terms of human evolution, spatial cognition is understood to have preceded language and 'thus the perception and cognition of visual and spatial information' is central to human thought (Butterworth, 2000, p. 10). Places affect and are affected by human activity, symbolising 'personal histories, interpersonal relationships, and shared events' at a personal, family, community and wider cultural scale (Perolini, 2011, p, 167; Butterworth, 2000, p. 6). Identity development in each of these contexts and personal growth 'at any stage of one's life' can be negatively impacted when occupying an environment that is 'hostile, unpredictable, un-trustworthy' or 'anxiety-

invoking' (Butterworth, 2000, p. 8). Weisman (1994) proposes that if a user's understanding of 'self' aligns with how they understand 'other' they will feel a certain degree of belonging. Feelings of alienation can be identified when these constructed understandings do not correspond (Weisman, 1994). This leads to the notion that space is not neutral, and experiences of space can be informed by cultural understandings.

In terms of individual and group behavioural responses to different settings, environmental psychologists have investigated how factors such as elevation, crowding, furniture arrangement, decoration, room adjacencies, interior volume, window views, lighting, and materials have a relationship with user experience. Within this literature, belonging to place is often conceptualised as a node within a larger hierarchy of concepts. Most consistently, these concepts are organised so that a 'sense of place' is considered to be a spectrum upon which place attachment and belonging are placed at a high level, for example, 'belonging to a place is a higher level of sense of place' (Yazdanpour & Moztarzadeh, 2014, p. 563; Falahat, 2006; Hayaty & Sakineh, 2011). For the purposes of the current research, synthesis of spatial factors for sense of belonging are presented here through six major themes in the literature: 'Place Identity', 'Place Attachment', 'Collective Memory', 'Spatial Knowledge', 'Shared Environmental Symbols', and 'Physical Comfort'. It is important to note that these concepts are not always understood to be distinct from one another, but here they have been organised into equal and separate ideas to inform the development of a flexible framework for data collection.

2.3.1 Place Identity

*The place identity of the individual is neither a simple
nor a static structure.*

(Proshansky, 1978, p. 156)

Place identity refers both to the idea that places have identities, and that they inform the identity development of people. Proshansky (1978) describes place identity as the 'dimensions of self that define the individual's personal identity in relation to the physical environment' (p. 155). Relph (1976), attributes the significance of place (as opposed to place-lessness) with the characteristics and meanings imbued in it by

people. While each of these thoughts involve identity of people and identity of places, Peng Strijker and Wu (2020) comment that there is a dearth of work that deals simultaneously with 'both sides of place identity' (p. 2). However, what is common across the literature pertaining to place identity theory is the role of place in collective relationships, group identity, and sense of belonging. This will be returned to for discussion in Chapter 8.

For the purposes of identifying spatial components of belonging, place identity is understood here in terms of the identity of a place. Factors for strong place identity include continuity of place over time (Breakwell, 1992; Twigger 1996), belonging of the place to a larger collection of places (Yazdanpour & Moztarzadeh, 2014), and a feeling of 'insideness', which can lead 'to the place becoming an extension of the self' (Anton & Lawrence, 2014, p. 454). A strong place identity is also enabled by its distinctiveness (Breakwell, 1992), which enables people to 'use place identifications in order to distinguish themselves from others' (Twigger-Ross & Uzzell, 1996, p. 207). This in turn can lead to a greater sense of belonging through the 'spatial diversity of the physical setting', 'congruence between the person and the setting', 'distinctiveness', and the 'inner and outer relationships' within the setting (Hayaty & Sakineh, 2015, p. 1262; Lewicka, 2011, p. 218). Factors that could be used to indicate and explore constructions of place identity are summarised in Table 2.

Table 2: Indicators of place identity

Dimensions of belonging in relation to space	Measurement / indicator
<p>Place Identity</p> <p>(Proshanksy, 1978; Relph, 1976; Breakwell, 1992; Twigger, 1996; Anton & Lawrence, 2014; Yazdanpour & Moztarzadeh, 2014; Hayaty & Sakineh, 2015; Peng, Strijker, & Wu 2020)</p>	<ul style="list-style-type: none"> • Continuity of place • Distinctiveness of the place • Level of self-efficacy within the place • Level of self-esteem within the place

2.3.2 Place Attachment

Place attachment combines the study of relationship formation between humans with the understanding that relationships can be similarly formed with places. As Scannell

and Gifford (2017) indicate 'place attachment can create belongingness by symbolically connecting individuals to their ancestors or cultures,' or by 'reinforcing social ties and community membership' (p. 257).

Place attachment occurs through accumulated biographical experiences that become synonymous with a place (Gieryn, 2000). The connection between place attachment and well-being 'has been more commonly investigated at the neighbourhood, community, and city scales', but little has been investigated at a more intimate level of interaction for young people at major points of transition (Scannell & Gifford, 2017, p. 256). As such, wellbeing can be negatively affected when 'place attachment is disrupted, with separation from one's significant place, such as through forced or voluntary relocation, can be devastating' (Scannell & Gifford, 2017, p. 256). Places - both natural and built, play a significant role in the identity and wellbeing of all people.

From the existing literature, place attachment is shown to be a spatial factor for sense of belonging. Factors that can affect place attachment are a sense of physical security (Butterworth, 2000), a symbolic connection to ancestors or cultures, a reinforcement of social ties and community membership, and mobility (Scannell & Gifford, 2017). This is summarised in Table 3.

Table 3: Indicators of place attachment

Dimensions of belonging in relation to space	Measurement / indicator
<p>Place Attachment</p> <p>(Steel, 1981; Lewicka, 2011; Yazdanpour & Moztarzadeh, 2014; Hayaty & Sakineh, 2015; Scannell & Gifford, 2017)</p>	<ul style="list-style-type: none"> • Residence length • Sense of security • Level of mobility • Level to which place is symbolic of past traditions

2.3.3 Collective Memory

A collective memory of places and spaces are entwined with sense of belonging. Elrahman and Mahmoud (2016) propose, 'the individual memory is formed alone or affected by others, at the end of the day it is a part of a bigger tissue' (p. 1101). Collective memory has been found to be encouraged by the 'formation of events and

social interactions’, ‘social and environmental security’, historic events, public ceremonies’, ‘access to public places for events and social interactions’, the ‘recording and transferring of memories’ and the ‘conservation of historic areas, old buildings, reminders, local names (Mirmoghtadaee, 2008, p. 37).

Table 4: Indicators of collective memory

Dimensions of belonging in relation to space	Measurement / indicator
<p>Collective Memory</p> <p>(Relph, 1973; 1976; Mirmoghtadaee, 2008; Elrahman and Mahmoud, 2016)</p>	<ul style="list-style-type: none"> • Degree of access to shared spaces for events and social interaction • Degree of residence continuity • Conservation of historic areas, old buildings, and local names

2.3.4 Spatial Knowledge

As suggested within the theories of place identity, place attachment, and collective memory, sense of belonging is often understood as being connected with familiarity to a place. This familiarity can be based on many factors which may be intangible, as suggested so far, but it can also refer to more literal and physical knowledge of a place. As proposed by Alawadhi, Chandrasekera & Yang (2011), belonging is ‘essentially related with familiarity to an environment’, which can be understood as ‘spatial knowledge’ (p. 341). This is treated by the authors in three main categories. The first is landmark knowledge, which refers to a person’s knowledge of specific sites and reference points, i.e. the ‘location of a goal’ (p. 338). The second is procedural knowledge, which is a person’s understanding of the paths and transitions between those goals. The third is survey knowledge, which is the level of understanding of ‘the environment as a whole’ (p. 338). Conversely, extreme experiences of low spatial knowledge can result in ‘spatial anxiety’, which may negatively affect sense of belonging within a place (Hund & Minarik, 2006).

Dimensions of belonging in relation to space	Measurement / indicator
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<p>Spatial Knowledge</p> <p>(Alawadhi, Chandrasekera & Yang, 2011, p. 341; Hund & Minarik, 2006).</p>	<ul style="list-style-type: none"> • Degree of familiarity • Level of procedural knowledge • Level of landmark knowledge • Level of survey knowledge
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Table 5: Indicators of spatial knowledge

2.3.5 Environmental symbols

Physical characteristics of space can signify values, stories, and behavioural expectations. In line with this, some theorists have proposed that space is comprised of a symbolic syntax, which like language can be ‘read’. Spatial characteristics can be both connotative and denotative in that they may directly impact upon behaviour or may symbolically communicate that a behaviour is expected. For example, a space may denotatively communicate that occupants should be quiet through explicit signage prohibiting noise and images of people doing quiet activities, or it may connotatively express this message through the provision of furnishings and materials that remind occupants of a place where they should be quiet, such as a library. This suggests possibility for both a dominant and resistant ‘reading’ of the built environment, including perspectives that have typically been marginalized as a ‘resistant’ reading to mainstream discourse.

There are some similarities between how spaces and languages are understood. The reciprocal relationship between language and space is summarised by Weisman (1994), who proposes that ‘the uses of both language and space contribute to the power of some groups over others and the maintenance of human inequality’ (p. 2). The associated meaning and significance that a user unconsciously understands to be imbedded in signs or objects is in direct relation to how closely the user will align to the interior environment that these elements make up. In this way, our perception of space is not inherently understood but symbolically constructed.

The ‘reading’ of space is described by Jackson (1991) as a call to obligation. He suggests that although a person’s body and voice belong only to themselves, individuals operate in perpetual response to their environment and its implied expected behaviours (Jackson, 1991). This relates sense of belonging to a conformity

with other, that which is not of an individual's own person or identity. Perolini (2011) extends this concept by suggesting that we do not merely exist in a physical environment, rather, 'we interact with it, posit it with significance and derive important meaning from it' (Perolini, 2011, p. 164). The meaning that an individual unconsciously understands in spatial elements, therefore, can determine the level to which the user will feel included or excluded by a built space. Morentin (2011) similarly proposes that the structure and representation of space is comparable to language in that it is socially constructed and, therefore, open to multiple interpretations. It follows that different spaces will require different languages to be navigated, which by extension also can be underpinned by different 'ways of knowing, being, and doing' (Martin & Mirraoopa, 2003).

Lefebvre similarly relates space with language. As he puts it, 'we can be sure, at any rate, that an understanding of language and of verbal and non-verbal systems of signs will be of great utility in any attempt to understand space' (Lefebvre, 1974, p. 132). He constructs occupation of physical space as related to interpretation and reproduction of language through the signifying of values and information (Lefebvre, 1974). However, a cautionary note is that 'reading' space is not as simple as searching for 'linguistic signs' that can then be extended to 'anything susceptible of carrying significance or meaning: images, sounds, and so on' (Lefebvre, 1974, p. 133). Rather, space is differentiated from other symbolic worlds in that it is also experienced physically.

2.3.6 Physical comfort

The sixth environmental factor for sense of belonging from the literature is physical comfort. In relation to Maslow's theory for human motivation (1943), this theme captures the physiology that makes up the bottom of the pyramid (Figure 6). From an environmental psychology perspective, this makes up the sense of security, safety, and comfort that can be promoted or inhibited by physical characteristics.

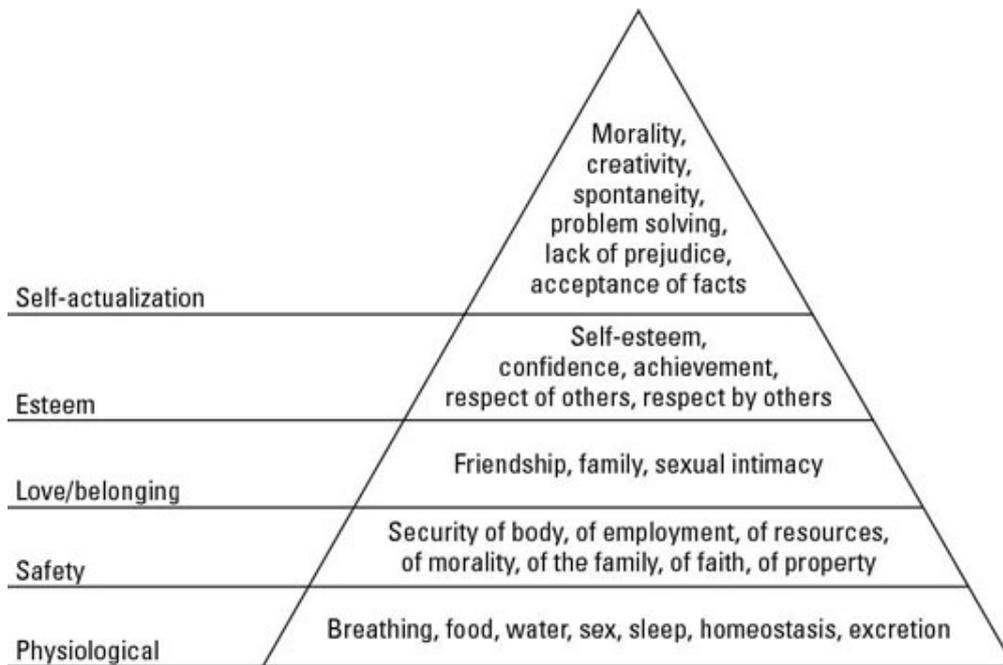


Figure 2: Maslow's hierarchy of needs (1943)

There are numerous dimensions to physical comfort that have been shown to have a relationship with sense of belonging, one of which is the experience of temperature. Zhong and Leonardelli (2008) identify a connection between perception of loneliness and coldness through a study in which participants were asked to recall an exclusion or inclusion experience and then estimate the room temperature. Participants who recalled exclusion consistently estimated the room to be colder than those who remembered an experience of inclusion. Further, Bargh and Shalev (2012) found that: a) higher chronic loneliness was correlated with participants taking more hot baths and showers, b) feelings of loneliness could be brought on by manipulating coldness, c) recollection of past experiences of loneliness could be reduced through a warm experience, and d) that people are typically not consciously aware of their social/spatial/cognitive associations between coldness and loneliness. The authors suggest 'physical and social warmth might be at some level substitutable for each other' (p. 3). They frame the use of physical warmth as a self-medicating treatment for lack of social warmth, though it is usually done so in a subconscious and implicit manner (Bargh & Shalev, 2012, p. 12).

Cold-ness fits within the physiology and safety realms of Maslow's 1943 conceptualisation of motivating needs. However, there is a growing body of evidence

suggesting that physical and social needs are more deeply interconnected than this, that perceptions of physiological needs are entangled with perceptions of social needs. This is further exemplified by the demonstrated relationship between social rejection and physical pain (Eisenberger et al., 2003; MacDonald & Leary, 2005; Panksepp, 2003).

Table 6: Indicators of physical comfort

Dimensions of belonging in relation to space	Measurement / indicator
<p>Physical comfort</p> <p>(Zhong & Leonardelli, 2008; Bargh & Shalev, 2012; Moztarzadeh, 2014; Scanell & Gifford, 2017)</p>	<ul style="list-style-type: none"> • Physical safety • Sense of security • Perception of 'coldness' • Functionality/ adaptability

In summary, the six main spatial dimensions of sense of belonging from the literature are place identity, place attachment, collective memory, spatial knowledge, environmental symbols, and physical comfort. These factors are proposed to be relevant for all people. However, it was also established through this review that space is not culturally neutral, and therefore different cultural groups, such as Aboriginal people, may have different conceptions of what a 'belonging space' is.

2.3.7 Aboriginal conceptions of space

First, it is important to note that it is not the aim of this section to provide a comprehensive overview of Aboriginal architecture, past or present. Nor is it to speak on behalf of Aboriginal communities as to the individual relationships and associations with specific spaces and places that may exist. Rather, the purpose of this part of the literature review is to establish two things that were critical for the present study: 1) that "space is not neutral" in a contemporary Australian context; 2) to outline relevant research pertaining to Aboriginal architecture. In doing so, key themes for understanding Aboriginal conceptions of space are highlighted. It should also be noted that the term 'space' in this section is intentional as it encompasses both built and natural forms.

If space is not neutral and can be produced differently according to culture and lived experience, then it follows that there are conceptions of space particular to Aboriginal cultures. The idea of place and land as 'central to well-being' is explored by Memmott and Keys (2015), in which this is interpreted as a signal for a 'sustainable approach to culturally specific places and landscapes in urban and architectural design' (p. 285). Perception of space plays a significant role in the wellbeing of Aboriginal people and may subsequently affect participation in major life events such as education.

Key research pertaining to Aboriginal conceptions of space in Australia stem largely from the Aboriginal Environments Research Centre (AERC) at the University of Queensland. Building on early anthropology and archaeology work (for example, Rapoport, 1972; Heppell, 1979; Hamilton, 1973), this research group has defined the discipline of 'Architectural Anthropology' in Australia (Memmott & Keys, 2017). Examples of work from this group include Aboriginal and Torres Strait Islander experiences of homelessness (Memmott & Nash, 2016), use of interstitial housing spaces (Steele & Keys, 2016), the significance of yards as outdoor living spaces in remote locations (O'Rourke & Nash, 2019), spatial preferences in hospitals (Nash, O'Rourke, Memmott, & Haynes, 2020), and archival analysis of vernacular housing (O'Rourke, 2020). Other notable recent works that relate to Aboriginal conceptions of space include 'The Handbook of Contemporary Indigenous Architecture' edited by Grant, Greenop, Refiti, and Glenn (2018) and 'Our Voices: Indigeneity and Architecture' edited by Kiddle, Stewart and O'Brien (2018).

Memmott (2003) describes 'the challenge for architects' as being to 'provide for those functions that can best be catered for within conventional building forms while also enabling culturally specific uses of space to continue' (p. 22). The design of new architectural types and specific buildings to house Aboriginal and Torres Strait Islander people or organisations has grown since the self-determination era of the 1970s (Grant & Greenop, 2018) and addresses Reser's (1979) concern that 'a house can be responsive or a virtual straightjacket' (p. 70). To successfully design environments for Aboriginal and Torres Strait Islander peoples, it is now understood to be imperative that designers appreciate the specific nature of Aboriginal lifestyles, noting that these are not homogeneous across Australia. Understanding and translating significant aspects of culturally specific responses of Aboriginal and Torres Strait Islander people to environmental settings may produce architecture which

better meets the needs of these groups and individuals, while minimising the adverse effects commonly caused by poor design.

Some common themes for Aboriginal conceptions of space, taken from the existing literature, are illustrated here through three examples from key authors, noting that this is not an exhaustive or universal set of considerations. For example, Memmott and Reser (2000) suggest 'pan-Aboriginal' themes for consideration in public architecture:

- Connection to Country
- Cosmology
- Place, Country as narrative
- Dwelling symbolism
- Inside/Outside, Sacred/profane
- History, Past & Present
- Relatedness
- Experience
- Legibility

These concepts may manifest in different ways between cultures, for example through different totemic or spiritual symbols. However, the authors suggest that there is sufficient evidence to consider these broad ideas as innate to many Aboriginal and Torres Strait Islanders' conceptions of space. One example of how these principles manifest in a specific context can be seen through investigation of the socio-spatial housing needs of Aboriginal women in Central Australia (Keys, 1996). This work describes culturally specific modes of occupation between natural and built space. For example, communal activity spaces defined by day-time shade, fire as a focal point for activities, the need for spaces that are conducive to cooking, eating, resting, talking, manufacturing, and observing, and the need for multifunctional and flexible structures (Keys, 1996).

With respect to contemporary education settings, Grant (2019) summarises that for many Aboriginal people the common socio-spatial needs require:

- *Siting the project on appropriate Country and acknowledging the language group within the design*
- *Promotion of continuing contact with family and kin*

- *Providing contact with the external environment while retaining comfort*
- *Accentuated wayfinding mechanisms*
- *Appropriately designed spaces to avert feelings of 'shame' and the need for appropriate spaces to retreat to*
- *Spaces that are calm and private*
- *Aboriginality to be imbued into the building/space so it feels like an 'Aboriginal place'*
- *Gender specific spaces*
- *Outdoor areas to allow people to gather freely*
- *Areas for community events and celebrations*
- *Areas for cultural events and meetings*
- *Non-confining areas for people experiencing trauma and grief issues to retreat to*
- *Areas designed for preventative interventions for children experiencing psycho-social disability or exhibiting the symptoms of trauma and grief which do not overtly confine the child*
- *Universal access from the kerb through the building*

(Grant, 2019, p. 46)

Time is also an important factor to consider in relation to Aboriginal conceptions of space and belonging. As explained by Linda Tuhiwai Smith:

These concepts are particularly significant for some indigenous languages because the language makes no clear distinction between the two: for example, the Māori word for time or space is the same.

(Smith, 1999, p. 50)

Baldwin and Keefer (2019) suggest that in the consideration of social and spatial factors for belonging, the role of time (or the 'temporal', as the authors term it) can be neglected. The additional (or inherent) layer of time in the conceptualisation of space allows for expanded storytelling about places to occur. Contemporary Western science understands land to be shaped by nature, while Aboriginal explanations depend on spiritual influence; knowing Country to be 'shaped and installed with resources by their ancestral heroes' (Memmott & Long, 2002, p. 2). In this sense, Aboriginal conceptions of space are rooted in characters and events with ongoing

narrative arcs. This ontological understanding increases the potential significance of the relationship between individuals, places and their stories over time.

While some common themes may suggest an Aboriginal “vernacular” in contemporary Australian design, it is also widely acknowledged that conceptions of architecture are specific to place and culture. The idea that there are no ‘quick architectural solutions’ (Keys, 2016, p. 75), highlights a need for consultation and collaboration with end users of individual projects. This is an important consideration for the current research. While no Aboriginal community is a ‘monolithic group’ (AITSIS, 2012), diversity of culture is an especially important consideration for Aboriginal boarders, who represent many different (though potentially connected) home communities. This means that the student’s understandings and relationships with space may differ. An added complication for the design of ‘Aboriginal Architecture’ in a boarding school context, is that the users of the space are usually not from the place on which the architecture is built, and the cultural custodians of the place are inherently not typically represented within the building’s primary user group.

In these settings, questions are raised about which Aboriginal groups’ conceptions of space should be turned to for direction, or ‘which body of Aboriginal or Islander cultural elements should be surveyed for use as symbols and/or motifs’ (Memmott & Reser, 2000, p. 74). As described by Memmott and Reser (2000), the process for authentic and collaborative consultation needs to ‘respect the local Traditional Owner groups’, and include ‘recognition and acknowledgement’ of their ownership of the land (p. 72). For example, in the development of a new building for the Australian Institute of Aboriginal and Torres Strait Islander Studies (AITSIS) in Canberra, Memmott and Reser (2000) proposed two possible paths. First, to inform the conceptual elements in the building with culturally symbolic material from specific groups. Second, to encapsulate a ‘pan-Aboriginal’ vernacular through commonly shared narrative and totemic themes across many, if not all, Aboriginal and Torres Strait Islander cultures. In the latter option, the authors warn against a reductionist approach leading to a ‘whimsical collection of Aussie animals’ within the design (Memmott & Reser, 2000, p. 55). There are similar challenges for the design of boarding schools.

As described by Grant, Greenop and Refiti (2018), ‘Indigenous architecture’ is ‘by, with and for Indigenous people’ (p. 8). In this way, boarding school buildings can be seen as typically more aligned with the conceptual and procedural needs of public

architecture, which must be both representative and accommodating of diverse user groups, while also genuinely and respectfully acknowledging local ownership. The vast majority of Australian boarding schools do not meet the criteria of 'Indigenous architecture', in that they are frequently not designed by, with, or for Aboriginal and Torres Strait Islander students. For this to be achieved, increased representation of student voices in the planning of architecture is needed.

2.3.8 Proposal for a flexible framework

To bring these ideas together (the spatial dimensions of belonging and the idea that space is not culturally neutral) in a functional way, the connected overall process of spatial production needs to be considered. Furthermore, as Lefebvre (1974) indicates it is not possible to compare space directly to language - words are already metaphoric and, therefore, a degree removed in abstraction from the physical world. While architecture contains signals that can be read in a symbolic way, our conception of physical space involves 'the chaos of sense impressions and stimuli' in the production of meaning (p. 138). In this way, the individual spatial factors for sense of belonging (as outlined above) should neither be siloed nor equally weighted. Instead, they illustrate a variety of ways that space and place can interact with sense of belonging and the level to which each component resonates for individual people and situations will vary.

Table 7: Summary of spatial components of belonging

Components of Belonging

Dimensions of belonging in relation to space	Measurement / indicator
<p>Place Identity</p> <p>(Breakwell, 1992; Twigger, 1996; Anton & Lawrence, 2014; Yazdanpour & Moztarzadeh, 2014; Hayaty & Sakineh, 2015)</p>	<ul style="list-style-type: none"> • Continuity of place • Distinctiveness of the place • Level of self-efficacy within the place • Level of self-esteem within the place
<p>Place Attachment</p> <p>(Steel, 1981; Lewicka, 2011; Yazdanpour & Moztarzadeh, 2014; Hayaty & Sakineh, 2015; Scanell & Gifford, 2017)</p>	<ul style="list-style-type: none"> • Residence length • Sense of security • Level of mobility • Level to which place is symbolic of past traditions
<p>Collective Memory</p> <p>(Relph, 1973; 1976; Mirmoghtadaee, 2008)</p>	<ul style="list-style-type: none"> • Degree of access to shared spaces for events and social interaction • Degree of residence continuity • Conservation of historic areas, old buildings, and local names
<p>Spatial Knowledge</p> <p>(Alawadhi, Chandrasekera & Yang, 2011, p. 341).</p>	<ul style="list-style-type: none"> • Degree of familiarity • Level of procedural knowledge • Level of landmark knowledge • Level of survey knowledge
<p>Environmental Symbols</p> <p>(Lewicka, 2011; Yazdanpour & Moztarzadeh, 2014; Scanell & Gifford, 2017)</p>	<ul style="list-style-type: none"> • Level of familiarity with symbols • Level of identification with symbols • Feeling of connection with ancestors and culture
<p>Physical comfort</p> <p>(Zhong & Leonardelli, 2008; Moztarzadeh, 2014; Scanell & Gifford, 2017)</p>	<ul style="list-style-type: none"> • Physical safety • Sense of security • Perception of 'coldness' • Functionality/ adaptability

Lewicka (2011) posits that there is 'a sad lack of theory that would connect people's emotional bonds with the physical side of places' (Lewicka, 2011, p. 218). This literature review suggests that there is a significant well of knowledge to make such a

connection, however, there are also many contradictory, ambiguous, or overstated relationships that undermine the clarity of such knowledge. Additionally, there are many settings for which theories about belonging and space have not been rigorously applied nor translated, including in boarding schools.

2.4 Boarding school as a typology

Within the broad range of models for student accommodation generally, it is important to define what is meant by a boarding school. In this study, they include only those used for the purposes of secondary education, or in some cases for late primary school students. While there are multiple, contradictory, and overlapping definitions for types of accommodation for young people living away from home for secondary school, this thesis adopts the use of the four models proposed by English and Guerin (2018). They define boarding schools as:

... a much larger facility that is on the same site as the secondary school and is part of the school organisation. Boarding schools tend to be founded upon religious principles and the staff employed at the boarding school are affiliated with the school itself.

(English & Guerin, 2018)

For example, in contrast to boarding schools, hostels and family group homes are typically more home-like and give more freedom than residential colleges, but then are often reported to have behavioural control issues.

Table 8: Comparison of accommodation models

Common characteristic <i>(English and Guerin, 2018)</i>	Boarding School	Residential College	Family Group Home	Hostel
Home-like environment	-	-	✓	✓

Flexibility of location	-	-	✓	✓
Staff from home community	-	-	✓	✓
Access to many new friendships	✓	✓	-	-
Cultural support programs	✓	✓	-	-
Conducive to study	✓	✓	-	-
Comparisons to prison or hospital	✓	-	-	-
Strict rules and routines	✓	✓	-	-

The simplest definition for boarding schools, as opposed to the other accommodation models, is that the residence is provided by the school, on the school grounds. Boarding schools are typically larger than other accommodation models, and due to their location on school grounds are necessarily high density compared to single family homes.

It is important at this point in the thesis to differentiate boarding schools from other types of buildings within the education context, specifically those which relate to learning. It should be noted that there is a significant body of local and international research to suggest that the built environment of schools can have an impact on learning outcomes. For example, Tanner (2000) suggests the influence of school architecture on academic achievement, Blackmore, Bateman, Loughlin, O'Mara, Aranda (2011) propose theoretical frameworks for improving learning outcomes through classroom design and Rands and Gansemer-Topf (2017) relate 'active' classroom design with increased student engagement. There is also existing literature to suggest a relationship between the physical design of education settings and student sense of belonging specifically. For example, Osbourne (2016) proposes spatial strategies pertaining to 'furniture, fixtures and equipment', 'walls and display', 'agency', and 'organisational structure' in order to increase learners' sense of belonging (Osbourne, 2016, p. 5-7). While these studies offer precedent for the ways in which interior design can impact student experience, they do not account for the residential and full-time nature of school for students who board on-campus. In this context, residents are not only 'learners', but young people navigating social experiences beyond the parameters of a school day. Therefore, designers of boarding schools' spaces may need to consider different social needs to that of classrooms.

Useful to this inquiry is Foucault's alignment of 'traditional' boarding schools with other 'disciplinary machinery' such as prisons, military barracks, hospitals, and classrooms (1977, p. 143). He suggests that these typologies share the same spatial qualities of being enclosed, heterogenous, monotonous, cellular, evenly dispersed, interchangeable, and hierarchical, to separate and control occupants. For example, Foucault proposes that 'disciplinary space tends to be divided into as many sections as there are bodies or elements to be distributed' and thus 'eliminate the effects of imprecise distributions, the uncontrolled disappearances of individuals, their diffuse circulation, their unusable and dangerous coagulation' (p. 143). Spaces such as these were termed 'heterotopias' (1971), meaning that which is other, separated, and unfamiliar.

2.4.1 The dual historical role of boarding schools

*Historically, boarding schools have been used by
colonising nations as a means of assimilating
Indigenous people into dominant societies.*

(Bobongie, 2017, p. 130)

Boarding schools have historically served as extensions of dominant power structures at the extremes of socio-economic positions. On a global scale, this can be seen through settings described as 'boarding schools', 'residential schools', 'missions' and 'public schools'. Australia has its own geographic and cultural factors that affect the accepted definition of a boarding school, but as with most colonised places the concept is simultaneously entangled with: 1) the English 'public school' system and its facilitation of 'elite' education pathways, and, 2) the use of residential schooling to assimilate Indigenous children to a European worldview. As Rogers (2018) says, 'there is an undeniable clash between indigeneity, whiteness, race and social class/capital' in Australian boarding schools (p. 214). Due to the deep connections between boarding schools and the incubation (or removal) of social class and economic power, the use of boarding schools for education in various settings has attracted debate. Gaztambide-Fernández (2009) proposes that 'despite their reputation for excellence, these unique educational institutions remain largely outside the gaze of educational researchers and the scope of public debates about education' (p. 1090). (Note, however the recent – 2020 - special edition of the Australian and

International Journal of Rural Education). This is also true for architecture and design where there has been little contemporary analysis about the way the built environments of boarding schools interact with their historical role in society.

2.4.2 The environmental psychology of student accommodation

There is a scarcity of literature to explain the psychological effects of boarding school architecture for young people, especially in a contemporary Australian context. Providing some theoretical background is a brief period of intense focus within environmental psychology research in the 1970s and 1980s. This resulted in a series of North American publications about the effect of design on student housing residents within the increasingly commercialised and accessible university market of that time (Bickman, 1973; Baum, 1976; Hansen, 1976; Mendel, 1980). These studies highlight the ability for poorly designed student accommodation to negatively impact social experiences.

Tension between economic efficiency and sense of community is a common theme across environmental psychology research in student housing. Since the first publications on this topic, architects have been criticised for being 'mostly concerned with the aesthetics and economics of their designs' and an 'apparent lack of concern for the psychosocial consequences' for student residents (Bickman et al, 1973, p. 470).

Another theme in the early environmental psychology research is that housing typologies with the greatest sense of attachment for students appear to be those in which they have had the highest degree of input and creative control. In an experimental student housing project in which student couples were invited to participate in the construction of their own low-cost living dome, students evaluated the experience with extreme warmth, in statements such as 'this dome is my home because I built it myself, home sweet home', 'this dome is an expression of me', and 'this dome is, in a sense, a part of me' (Corbett, 1973, p. 498). This is consistent with observations that 'students clearly prefer worn and old housing', noting that even when functional factors such as soundproofing are inferior, students prioritise 'freedom of access and travel, and personalizability of the living area' (Heilweil, 1973, p. 378). This personalisation, which may at first seem to be superficial decoration, has been found to have a strong correlation with student dropout rates, with those

decorating less than their peers, and with overall less personalisation of their dorm rooms dropping out at higher rates (Hansen & Altman, 1976). Similarly, Heilweil identifies a major risk for student retention in on-campus accommodation is a 'sense of transience', imposed by the institutional and short term nature of dormitory rooms in which students 'have no place to call their own' (Heilweil, 1973, p. 382). Specifically, less flexibility or ability to personalise space, students experience feelings of 'alienation, hostility, rootlessness' while waiting 'until something better can be found' (Heilweil, 1973, p. 382).

These studies also reveal a gendered dimension to the design of student accommodation. Although the purpose of the current research was not to compare experiences based on gender, it does provide an opportunity for understanding Aboriginal young women's experiences of student accommodation, who made up most participants in the current project. This is in contrast to the available research, which is overwhelmingly focussed on the experiences of North American young men. Furthermore, in the environmental psychology literature, there is a consistently gendered language in the description of student experiences, with 'he' being used as the sole default pronoun for behavioural observations. For example, Heilweil (1973) articulates the need for privacy by saying that 'the college student...has no place where he can sit down in comfort with a book and a pipe and possess his soul in quietude ... no place where he can express his taste and develop his personality' (p. 380). While the need for privacy is not solely male, the reasoning attributed to this need is based on a male perspective, presumably based on the authors' own experiences and values. Similarly, an observation about the function of 'sound deadening window drapes' that were introduced into men's halls of residence were described as being met by students 'with approval' in spite of the author's surprise that this was 'notwithstanding the potential feminine overtones in a concern for such frills and extras' (Heilweil, 1973, p. 393). While the suggestion from these studies, in this case that privacy and acoustically absorbent materials are important, are useful in the current context, the interpretation of the social experiences behind this data do not necessarily translate to the experiences of young women in contemporary Western Australian boarding schools.

Overall, a deeper analysis of the behaviours of young women residents in student housing is generally missing within this literature. Previous observations do include there being an 'interesting sex difference in use of corridors' in that 'girls dress to go

into the corridor, whereas boys do not'; that 'girls will knock on room doors and wait to be invited in, while boys will knock and walk in'; that boys 'are equally comfortable in various stages of dress or undress in their rooms as well as the common corridor spaces'; and that, therefore, 'gang bathrooms' pose more intrinsic 'inconveniences for women than for men' (Heilweil, 1973, p. 382). Other factors that are not explored in previous research include behaviours of residents in single-sex environments, and whether or not and how this is encouraged and reinforced by the architecture, especially when it has not been designed with young women as the intended users. To do this it is important to elicit explanations from the students themselves - in their own words. Finally, it is important to consider whether frequently taken-for-granted characteristics of student housing (such as the shared bathrooms and corridors) can contain unequal social meaning and function amongst student residents.

Stress is related to person-environment interactions, especially misalignment between the individual and environmental attributes. For example, design details such as staggered door placements along a corridor are identified as having an impact on privacy and comfort, so that if 'doors face each other then occupants have visual access when the doors to both opposing rooms are open', meaning that door use 'becomes part of the general issue of enforced sociability' (Heilweil, 1973, p. 383).

Another situation in which the interior can contribute to or reduce environmental stressors is in shared dining halls. Issues with institutionalised dining are largely identified in organisational limitations such as food choice, reserved meals, 'common denominator preparation', and, fixed hours for eating 'the physical layout of 'mass feeding'' (Heilweil, 1973, p. 383). While 'institutional eating' is suggested to be problematic in these studies, the 'togetherness' of shared dining has been identified as a benefit to on-campus housing. It is proposed that small round tables in a residential scale room are more suited for existing friendships, whereas large rectangular tables are conducive to creating new ones. This suggests a need for a flexible combination of various types of arrangements.

As established in 2.2.4, indicators of belonging may provide increased opportunity to relate personal stories to a concept. An example of this can be seen in the link between sense of identity and belonging to a group with increased 'helping behaviour' (Midlarsky, 1968). The relationship between group identification and altruistic behaviour was used to evaluate high density student housing. Helping behaviour was

measured by placing stamped and addressed letters in dormitory hallways in order for students to believe that the letter had been dropped by another resident, but with no return address they would not know to whom it belonged. If a student mailed the letter this was considered indicative of quality interpersonal relationships in the dormitory, as doing so would be an anonymous helpful act for an unknown fellow student. The study found that helping behaviour was more likely in lower density accommodation. 67% of letters were posted in the high-density dormitories, 87% in medium-density and 100% in the low-density houses. In other words, students of lower density accommodation were more likely to engage in the altruistic task. This finding is consistent with varied exhibitions of trust and social responsibility in high and low-density situations, such as between town and city dwellers (Milgram, 1970).

While there is limited analysis of boarding school design within the area of environmental psychology, another setting that could be helpful in understanding the social function of design in this situation is in prison settings. Parallels can be drawn between the trends and experiences of boarding schools with prisons in that they are both high density accommodation typologies for young people, with clear parallels in their function as a full-time residential institution. Like prisons, boarding schools provide accommodation for young people in which all basic needs are holistically provided by a single institution. The provision of a place to sleep, eat, wash, exercise, learn, and have leisure time are assumed, with the responsibility for the safety and care of residents entrusted to the organisation. Grant, Lulham, & Naylor (2017) assert that 'to understand the behaviours of the children in custodial settings, it is useful to review the literature on the responses of young people to imprisonment' and that theoretical models derived from environmental psychology can 'assist in the understanding of environments that enhance reasonable behaviour' (Grant, p. 117). Of relevance to the current research is understanding what constitutes a sense of imprisonment for Aboriginal young people and whether similar spatial responses, as identified by Grant and others, are also applicable to some experiences of boarding school.

Though the literature reviewed here is mostly based on different contextual factors to the current study, some key findings are highlighted which have implication for the design of contemporary boarding schools. The following suggestions from the environmental psychology literature about student housing provide some theoretical precedent for the current investigation:

- Higher density is linked with reduced sense of community and helping behaviour
- Place attachment is linked with level of creative input and control by students
- Students prioritise freedom of movement and personalisation over aesthetics
- A sense of transience (as may be communicated by a lack of decoration) is a risk to student retention
- Perceptions of privacy needs by both residents and designers can be gendered
- Acoustic privacy is important
- Furniture choices, such as small or large dining tables, have social implications for residents
- There are typological similarities between student housing and other types of institutional accommodation, such as prisons

These considerations are useful for highlighting the potential impact of interior design choices for the social experience of student residents in high density accommodation. However, they do not necessarily account for the specific socio-spatial needs of Aboriginal students, or the contemporary Australian boarding school context.

2.4.3 Aboriginal students' experience of contemporary boarding schools

This section presents existing research about the experiences of Aboriginal and Torres Strait Islander students in boarding school. Research from the last ten years that has collected primary data specifically from the perspective of Aboriginal and Torres Strait Islander young people who attend boarding schools is included. While there are many more publications on this topic that use secondary analysis to evaluate boarding school policy, outcomes, and experiences (see Guenther et al., 2020) only seven distinct studies met the criteria of being published in the last 10 years, and containing original first-person data from Aboriginal and/or Torres Strait Islander student participants who live, or have lived, in boarding schools. Within these seven studies only one focussed specifically on Western Australian boarding schools (Mander, 2012) and two on the experiences of young women (Rogers, 2018; Bobongie, 2018). However, none focus on the potential role of the built environment.

Table 9: Summary of literature

Author	Sample	Methods	Topic of focus
Mander (2012)	Male secondary school students (32) from regional and remote communities, parents (11), boarding school staff (16)	Narrative interviews and thematic analysis	The transition experience to boarding school for male Aboriginal secondary school students from regional and remote communities across Western Australia.
Benveniste (2015)	Families (11), past students (11), community members (9), and boarding staff (24) across six APY communities, Alice Springs, and Adelaide.	Autoethnographic and semi-structured narrative interviews within grounded theory methodology	Post-boarding school expectations, experiences and outcomes for remote Aboriginal students, their families and their communities.
O'Bryan (2016)	Alumni of boarding schools (35); parents or community	Multiple case study methodology with	The lived experience of Aboriginal and Torres Strait Islander

	members (27); and school leaders or staff in boarding schools (12)	interviews and focus groups	students in Australian boarding schools.
Bobongie (2018)	Current female students in years 7-12 representing different communities in the Torres Strait region (26), staff and ex-students (18)	Ethnographic methodology, survey, focus groups and interviews	The transition and challenges for female students leaving Torres Strait Island communities for boarding schools in regional Queensland.
Rogers (2018)	Aboriginal and Māori girls currently attending boarding schools (35)	Photoyarn method, underpinned by relatedness theory	The voices of Aboriginal and Māori girls attending boarding schools.
Macdonald (2018)	Students living in a boarding house (207), day students (293), students that did not report their residential status (36). Of total survey participants, 45% self-identified as Aboriginal.	Survey, with follow up interviews and focus groups, analysed through factor analysis, then multivariate and univariate analysis.	Examining the perceived benefit of education for Aboriginal secondary students in Western Australia. Comparisons between Aboriginal and non-Aboriginal perceptions.
Redman-MacLaren et al. (2019)	294 Aboriginal and Torres Strait Islander young people from 17 remote and very remote communities in Cape York and Palm Island	Evaluation survey of a transitional support program (TSS). 22 close-ended questions including yes/no, rating scales, demographic questions.	Evaluation of transition support services from primary to secondary school.

Generally, a feeling of not belonging was common for Aboriginal and Torres Strait Islander students within these research projects. As described by a participant of one study, 'I don't feel like I belong here because it's just- it feels like- it just feels like that we can't display our culture in any way' (Bobongie, 2017, p. 134). Fourteen themes were identified in these studies as barriers for sense of belonging (Table 10).

Table 10: Barriers to belonging

Barriers to sense of belonging for Aboriginal and Torres Strait Islander students in boarding schools	
<i>(Mander, 2012; Benveniste, 2015; O'Bryan, 2016; Bobongie, 2018; Rogers, 2018; Redman-MacLaren et al., 2019)</i>	
The initial shock of transition	Experiencing racism

Identity tension between school and home	Maintaining home responsibilities and relationships
Being away from Country	Feeling trapped or lost
Homesickness	Becoming a young parent
Dealing with trauma	Financial stress
Lack of peer support at home and/or school	Too high or too low academic expectations
Navigating a different language	Unfamiliar food

Some of these themes are discussed here in more detail, with a focus on those which have a strong connection to the potential role of space and its design.

Connection with family and community is essential to sense of identity and belonging for Aboriginal young people in boarding schools (Mander, 2012). The separation imposed by attending boarding school presents multidimensional barriers to belonging, with ‘competing cultural assumptions’ about ‘what value education has relative to the priority of sustaining relationships with family and community’ (O’Byan, 2016, p. 194). The simple difficulty of ‘being separated from their families for long periods of time and by large physical distances’ is often complicated by a loss of familial responsibility and guilt (Mander, 2012, p. 172; O’Byan, 2016). Mander finds that students reminisce for previously taken for granted family routines in which they can receive support and encouragement on a daily basis (Mander, 2012). This is not only absent from life at boarding school, but often replaced with feelings of loss and guilt ‘inflamed by messages and calls received from home, and complaints about how hard life is at home without them’, causing students to feel ‘trapped and helpless’ (Rogers, 2018, p. 209). When students could not uphold these obligations, which include maintaining knowledge and cultural practices that confirm their sense of belonging, they experienced distress and emotional disruption (Mander, 2012, p. 181; Rogers, 2018, p. 210).

In addition to pressure from home, the literature finds a lack of understanding from schools. An example of this is given in Macdonald and colleagues’ study, in which ‘one school refused to allow Aboriginal boarding students to have ‘family’ photographs with other boarding students who had stated they were family, but were

not birth siblings, which left interviewees feeling discriminated against' (2018, p. 206). It is highlighted that increased meaningful communication with remote families is necessary to alleviate these challenges and increase understanding on both sides. Whilst education is a commonly cited social determinant of health, where school attendance weakens relationships at home 'the consequences for young people have serious implications for their wellbeing' (O'Bryan, 2016, p. 159).

The concept of dichotomising cultural experience through 'orbiting' in order to have the best of 'two worlds' aligns with the identified behaviour, or skill, for Aboriginal students to 'code-switch' between settings. For boarding school students, this is described by Mander (2012, p.161) as 'two distinctly different ways of being'. The term is usually used to describe bilingual people who 'switch between codes of different forms of language to communicate with others' (p. 158). While this behaviour was constructed as a 'necessity', rather than a choice, it was also concluded that code-switching enabled the students to 'sustain a sense of self' during the separation from home, and to 'forge a sense of harmony between home life and boarding school life' (p.161). A similar duality can be seen in the concept of 'two way learning' in which 'code-switching is an important skill' and it is essential that the learners' existing experience is recognised as enabling them 'to make links to new knowledge' (Tamisari, 2003, p. 5). While many advantages to code-switching are highlighted in the current literature, there is also evidence that this can lead to identity tensions for Aboriginal students in boarding schools, for whom the construction of identity between home and school is not easily reconciled.

Another way of understanding the transition between languages is through the notion of 'translanguaging', which is 'both going between different linguistic structures and systems and going beyond them' (Wei, 2011). As described by Mander (2012) and others, 'code-switching' by Aboriginal boarders can go beyond 'modifying communication and language protocols' to encompass continual transition between 'social roles and scripts, culturally valued attitudes, behaviours, and values' (p. 159). This aligns with the concept of 'translanguaging', which resists the binary understanding of 'switching' a mode on or off. Instead, this theory conceives language and behaviour as fluid structures which can be transitioned between smoothly, and with intersecting 'moments' (Wei, 2011). This understanding of moments is underpinned by, but different to Lefebvre's conception of rhythms (2004), in that it focuses on the creation of definitive conceptual space rather than repetition of

patterns over time (Wei, 2011). In this way, through translanguaging 'actors' can create critical and creative spaces (moments) that reinvent or sit outside of existing structures. This could also be understood as the third space. This brings into focus the potential role of physical space in facilitating such opportunities for multi-lingual students, whose critical and creative production of multiple identities could be accommodated for simultaneously. Further, this way of thinking could lead to the design of spaces that offer a more accurate image of students' complex internal worlds.

Homesickness is not a unique experience to Aboriginal and Torres Strait Islander students moving away from home to live in boarding school (O'Bryan, 2016, p. 140), but the literature suggests that there are dimensions to homesickness for these students that are often dismissed or not fully captured in the support offered to them. There appears to be a dominant understanding in schools that homesickness is experienced by all students initially, and that by keeping busy and distracted this can eventually be overcome (AIEF, 2015, p 110). The challenge this presents to Aboriginal and Torres Strait Islander students is a theme in the existing literature. This has been described in terms of 'the depth and persistence of suffering many young people endure' while away from home (O'Bryan, 2016, p. 140), which for Aboriginal participants of previous studies has been reported as 'painful' (Mander, 2012, p. 154). This severity has been described as exacerbated by a lack of relief, as students can develop feelings of homesickness even while they are at home.

In addition, students identify that a feeling of not fitting in can become a sense of active rejection or alienation by the environment around them. In contrast, a positive school culture including 'promotion of Indigenous culture' has been identified as an effective way to improve student engagement (Macdonald, 2016, p. 4). This is in opposition to the reported 'cultural dissonance' that could exist between home and school for participants, resulting in a 'longing for home where they enjoyed an unspoken understanding of community values and priorities' (O'Bryan, 2016, p. 142). However, it should be noted that even in cases where students did feel a strong sense of relatedness and connection with culture in boarding school, 'the pain and heartbreak of being away from home and missing family did not disappear' (Rogers, 2018, p. 208).

Gendered experiences can also play a role for residents of boarding schools. Traditional gender roles have been highlighted as 'the biggest impediment to Indigenous young women's pathways' in relation to education participation in remote communities (Cuervo et al., 2015, p. 13). This is given global context in a report prepared for the United Nations Permanent Forum on Indigenous Issues by Smith (2009), in which it is stated that 'there are often gender disparities in boarding school education' and that Indigenous boys are 'often more likely to attend schools that emphasise academic education that enables economic opportunity' compared to their female counterparts (Smith, 2009, p. 47). In Western Australia, the total number of young women students receiving a Centrelink allowance associated with boarding school for the past four years is higher than the total number of male students, but male student numbers in year 12 are consistently higher (Department of Human Services, 2013; 2014; 2015; 2016). This suggests that retention of young women is a particular challenge, but the apparent disparity is a complex phenomenon to navigate in terms of culturally appropriate solutions.

One example of a circumstance that may be perceived as a disadvantage from a Western perspective, but could contain an entirely different cultural meaning in a traditional or contemporary Aboriginal context is the theme in the current literature of 'becoming a parent'. For example, it is asserted in *'Aboriginal and Torres Strait Islander adolescents and their attitudes and behaviours around relationships, contraception and pregnancy: lessons for policy and practice'*, that 'teenage pregnancy tends to be problematised in non-Indigenous Australian society' and in contrast to this attitude is recorded in their study that becoming a young mother (between age 16 and 19) is often perceived as a 'miracle, a gift and an opportunity.' They highlight the 'transformative potential' of motherhood and their new priority in 'taking responsibility...obtaining stable housing, disentangling themselves from unhelpful relationships, all things that they perceived as important for the child's welfare and a part of "acting like a mum" (Larkins, Page, Panaretto, Mitchell, Alberts, McGinty, & Veitch, 2011). In this way, major life events such as pregnancy, relationships and education are navigated within more than one cultural context, and so it is important to understand how these circumstances and contexts intersect.

The factor of 'choice' has emerged as an important concept in boarding school experiences. On the one hand, remote Aboriginal and Torres Strait Islander students are often forced to choose between 'reduced educational outcomes' and 'loss of

cultural identity' (Macdonald, 2016, p. 19). This has been described as a 'choice less choice' (Mander, 2012; Guenther & Osborne, 2020). On the other hand, Cape York leader Noel Pearson argues for 'the choice whether to remain on economically and culturally vibrant homelands or to orbit into the wider world, and return to home base when we wish' (Pearson, 2005, p. 10). This is contextualized by the typically high levels of rural–urban mobility by Aboriginal and Torres Strait Islander people, which Pearson proposes will continue to be important in future generations (Pearson, 2009b, p. 292).

Overall, there is a theme in the existing literature that Aboriginal and Torres Strait Islander students are expected to be resilient in order to attend boarding school, and that this is a key criteria by schools and scholarship agencies in their recruitment processes. Resilience is described as being 'a reactive state that is focused on surviving the negative impacts of racism and colonisation' (O'Bryan, 2016, p. 286). It is further explained that higher levels of resilience 'might enable a student to *survive* the challenges they encounter at school' but does not necessarily ensure wellbeing, engagement, or success (p. 285). O'Bryan suggests that at the other end of this continuum is 'flourishing and self-determination' (p. 286). This has implication for the current study, further suggesting the need for research that measures 'success' through factors associated with flourishing and self-determination, such as sense of belonging.

It is important to recognise that while it is not a distinct theme in the current literature, previous studies have highlighted some key connections between Aboriginal and Torres Strait Islander student experiences of boarding school and their perceptions of the physical environment. This is typically described in relation to students' initial transition to the school. In Mander's (2012) study, he observes that 'one informant described that the architectural design of the residential facilities in his boarding school presented as a shock' (p. 154). This participant explained that: '*well last year was the first time I'd I slept in a three story house; it was frightening looking out the window down at the clothes line outside*' (student Informant 7, quoted in Mander, 2012, p. 154). Similarly, in O'Bryan's (2016) study, participants were 'struck' by the size of their new schools, which were sometimes larger than their entire home community (p. 142). General observations such as these are frequent in the literature, as are observations about the symbolic role of flying the Aboriginal flag. However,

beyond these suggestions there is little, if any, reflection about the role of built space in the students' perceptions and actions while living in boarding school.

2.5 The useful concept of third space

The idea of third space provides a theoretical lens through which to understand both the social and spatial dimensions of belonging in student housing, and how these are innately intertwined. Table 11 shows five key threads in third space theory and the proposed characteristics of each of these by the authors.

In the context of this research, the idea of third space was understood to be connected to sense of belonging in that it is a concept concerned with the social dimension of environments of many types. The common theme in the multiple manifestations of third space theory is that it is the structure (social, spatial, or both) for articulating identity and affording voice in the gaps between otherwise dominant forces. The notion of 'voice' here also involves the 'body', as understanding people's interaction with the physical world 'requires an understanding of the ways in which the users of the space desire, as well as need to be empowered to re-construct it' (Tiwari, 2010, p. 115). As Jackson (1999) puts it, in every space there is an implied 'call to obligation', and the level to which a person fulfils that call determines their level of 'fit' within that environment. He describes the experience of belonging in this way:

*This body, this voice. They belong to no other. Yet,
they never cease responding to a call to obligation.
This self and the question of belonging (to whom? To
what?), is perhaps, the horizon for the task of
interrogating the crossing of cultures, a horizon for the
possibility of a locus from which to start.*

(Jackson, 1999, p. 41)

The aim of this research was to use the idea of third space to articulate these obligations and create opportunities for self-expression in response. This is meant both in the physical sense, in terms of the future interior design of boarding schools, and in a methodological sense, by using methods that centre participant voices.

Third space theory in a built environment context can also be seen in the notion of 'third place'. Oldenburg (1989) proposes that third places are publicly accessible environments with a social function distinct from home (first place) and work (second place). For example, cafes, libraries and neighbourhood streets (Lin & Bratton, 2015; Hickman, 2013). In other words, third places facilitate social connection and belonging which can lead to numerous mental and physical health outcomes (Lin, 2015). The distinction between 'home' and 'work' in boarding schools can be simultaneously non-existent, blurred, and extreme. Throughout this thesis, 'third space' is used as an over-arching term which includes 'third place', though it is acknowledged that the two ideas are not synonymous.

Table 11: Third space theories

Third space theory
<i>'Third space' (Lefebvre, 1974; Soja, 1996)</i>
Space is socially produced.
First space is the 'perceived'.
Second space is the 'conceived'.
Third space is the 'lived experience'.
<i>'Third place' (Oldenburg, 1989)</i>
Third place is neither home (first place) or work (second place).
Third places have a social function for neighbourhoods, e.g. a pub, café, or library.
Publicly accessible, locally appropriated,
Third places are "ordinary".
<i>'Third space' (Bhabha, 1994)</i>

Third Space is between precolonial (first space) and postcolonial (second space).
A product of hybrid cultures.
Acknowledges multiple identities.
‘Holding space’ (<i>Elston et al., 2013</i>)
Space that is held for Indigenous voices to be heard in academic institutions.
Has inner (private) and outer (public facing) layers.
‘Counter space’ (<i>Mayeda et al., 2014</i>)
Space created in reaction to a dominant culture.
Culturally driven.
Provides access to a non-competitive environment.

Third Space theory, as understood by Bhabha (2004), is a concept for the literal and metaphorical spaces catalysed by postcolonial cultural intersections. This is useful in understanding the cross-cultural dimensions to boarding school for Aboriginal students. Bhabha characterizes the space between double identities (referred to as images) as the ‘third dimension’ (2004, p. 50). This is in line with the documented experience of feeling ‘between two worlds’ reported by many Aboriginal students who attend mainstream boarding schools. It is important to note that many Aboriginal students navigate multiple language and cultural settings within their own communities before attending boarding school. Bhabha’s characterization of third space as a tension within hybrid postcolonial settings is useful in understanding the extreme polarities and ‘in-between-ness’ between home and boarding school for remote Aboriginal students (Dudgeon & Fielder, 2006).

Bhabha challenges the imperialist desire for cultural purity—a wholly white, civilised ideal. But he also disallows the possibility of a pure oppositional cultural space. The third space, in essence, is the fissure in between ostensibly seamless and stable places. It is a space that can be opened up, but the impulse to pin down, close, or paste over is strong. There is no pure, homogeneous cultural place for Bhabha. Everything happens in between.

(Dudgeon & Fielder, 2006, p. 400).

In a study about factors in university success in New Zealand, one participant makes clear the value of a reliable room in which students feel supported and culturally safe:

When you walk into the room it's like you have that instant feeling of belonging ... I do have a purpose here, I can achieve what I want to achieve.

(Mayeda et al., 2014, p. 174)

These ideas suggest that the use of space in this way can prevent feelings of campus alienation, and 'assist indigenous and Pacific students in feeling connected with the university and invested in their education' (Mayeda et al., 2014, p. 174). So, in addition to existing third space theory relating to Indigenous experiences of academic institutions, there is also a broad understanding of space in architecture and space planning that is useful for addressing the current research questions. These were useful for the current project.

2.6 Conclusion

While the attendance of boarding school by remote Aboriginal and Torres Strait Islander students is increasing in both support and funding, it is clear that this is a complicated space in which solutions require 'careful consideration and implementation' (Guenther et al., 2017, p. 262). While geographic isolation and physical separation from community are found to be major barriers to education, the ways in which the design of place and the built environment while away from home can reduce or exaggerate challenges has not yet been examined.

The key findings from this literature review are that:

- 1) Sense of belonging is important,
- 2) Design of space can impact sense of belonging, as illustrated through the discussed spatial components of belonging (Table 2),
- 3) The historical and contemporary role of boarding schools in society are not widely researched or understood,
- 4) Aboriginal and Torres Strait Islander students can experience many barriers to their sense of belonging through their attendance of a boarding school,

- 5) Third space theory provides a useful framework with which to understand some of the complex social and spatial experiences of boarding school for Aboriginal and Torres Strait Islander students,
- 6) Sense of belonging is subjectively evaluated and, therefore, cannot be measured numerically or in a standardised way, suggesting a need for semi-structured, open-ended, and qualitative research methods.

The translation of these key points to the methodological design of the current study are described in the following chapter.

Chapter 3. Methodology and Methods

...iterative engagement with story may produce knowledge that weaves together collective experiences without changing the original story.

(Hallett, et al., 2017, p. 13)

3.1 Introduction

This chapter presents the methodology and methods used to answer the research question:

How can interior design increase a sense of belonging for Aboriginal students living in Western Australian boarding schools?

Sense of belonging was the main variable in the project and the methodological choices are, therefore, primarily related to how sense of belonging could be best understood and represented. These choices also responded to the following research objectives:

- 1) *To examine the concept of 'belonging' as a tool for evaluating the design of student housing;*

- 2) *to identify elements of the interior design of Western Australian boarding schools which affect Aboriginal young people's sense of belonging;*

- 3) *and, to propose a strategy for the interior design of future boarding schools that may encourage an increased sense of belonging for Aboriginal students.*

It was determined that the project design should: a) be responsive to differences in worldview, b) allow for the possibility that a sense of belonging may not be defined or experienced in the same way by everyone, c) be participatory in nature, and d) empower participants to discuss complex spatial concepts in their own words. Another consideration was to reduce the risk of themes from participants becoming mis-translated to practice through analysis and dissemination. Importantly, this research did not aim to rate or finitely document the qualities of individual boarding schools to determine 'sense of belonging-ness', as it was understood that there can be no neutral or universal method of evaluation. Rather, the aim was to foreground the lived experience of students according to their own frames of reference.

Following the current introduction, the first section of this chapter, '*3.2 Qualitative Research*', lays out the epistemological positions of the project, the reasons for using a qualitative approach, and (building on the literature review) how the methodological choices were informed by third space theory.

The next section, '*3.3 Participatory Action Research*' introduces Participatory Action Research (PAR) as the guiding methodological framework for the project. Within this section, key characteristics of PAR and how there were translated to this setting are explained. This includes the consideration within PAR of everyday life as a form of 'practice', the treatment of inside and outside perspectives within the research, the need for communicative space in the data collection, and the adaptation of a typical spiral of action to a nested model.

Next, '3.4 *Developing the method*' introduces yarning and drawing as the primary choices for culturally and age appropriate methods of data collection. This section outlines the process for developing and testing a semi-structured participatory yarning framework for spatial research with Aboriginal young people.

Section '3.5 *Data Collection*' describes the process and details for the data collection. First, this is contextualised through describing what was originally intended compared with what happened. Next, the snowball method for participant recruitment is outlined and then the details of the participants and settings are described. This leads to a description of the large roll of brown paper which became a critical tool for creating a participatory third space in the research. This section describes the considerations that led to the introduction of this idea (from testing the method in the pilot study) and the steps taken with the paper within each yarning session.

The next section, '3.6 *Data analysis*', describes the approach taken to data analysis. Reflecting the nested PAR cycles, this was informed by two qualitative methods: constant comparison analysis and thematic analysis. This combined approach allowed participants to partake in the analysis, while also acknowledging the subjective role of the researcher in the process of systematic meaning making.

Following this, section '3.7 *Ensuring trustworthiness in the research*' describes how validity was secured in the context of this project, and the measures taken to ensure trustworthiness based on the established literature.

Ethical considerations and actions are then described in '3.8 *Ethical Issues*', including the role of the Advisory Group, Cultural Advisor and resources for doing research with Aboriginal and Torres Strait Islander people that guided the project. Here, the ways that this research met the requirements for Human Ethics approval are explained, including the process for gaining informed consent from participants, and the treatment and storage of data.

Finally, '3.9 *Conclusion*' provides a summary of the chapter.

3.2 Qualitative research

The research decisions I make and actions I take are, like seeds of the gum tree, carried by wind and water reaching places I cannot know.

(Rogers, 2018, p. 70)

This section of the chapter presents the assumptions, considerations, and choices that informed the research methodology. As explained by Jordan and Elsdon-Clifton (2014), 'the methodology which a researcher employs has a number of implications for the scope of the study and the contribution of the research to the field (p. 220). Due to the researcher being a non-Aboriginal person engaging with the lived experience of Aboriginal young people (note: there were no participants who identified as being Torres Strait Islander in this study), an understanding of alternative worldviews and realities was a necessary foundation for the project. The considerations outlined above, namely that the topic at hand required an approach that values different worldviews and prioritised participant voices, were aligned to a qualitative research design, the central goal of which is to document a phenomenon from the point of view of the people who experience it.

Qualitative research has some criticisms, namely that it can be 'too subjective', 'difficult to replicate', have 'problems of generalizability', and a 'lack of transparency' (Bryman, 2012, p. 405). However, its strengths are that it can provide a rich depiction of lived experiences that, unlike many quantitative approaches, are not divorced from context. Rogers (2018) argues that qualitative methodology is important for research about the boarding school experiences of Indigenous students (note that the use of the word 'Indigenous' here is intentional, as the project included Māori, as well as Aboriginal and Torres Strait Islander student participants, and this was the identifier chosen by the author):

...qualitative data are essential to understand the relationships between the interconnected causes of disengagement of Indigenous girls who have left boarding school without having completed their schooling

(Rogers, 2018, p. 219).

The researcher was mindful of being an outsider, which has been highlighted as 'challenging' for doing research with Aboriginal communities (Issacs, Pepper, Pyett, Gruis, Waples-Crowe & Oakley-Browne, 2011, p. 57). In these situations, sensitivity, reflexivity, and flexibility have been highlighted as essential qualities for the research to be successful; characteristics which are typically more accommodated for in qualitative designs (Issacs et al., 2011, p. 57). The need for a flexible approach that centred participant voices was especially important in the involvement of Aboriginal young people with the project. Furthermore, a qualitative design was aligned with the goals of creating 'third space' characteristics within the research, which will be discussed further in 3.2.3.

3.2.1 Ways of knowing

A fundamental premise of this research was that all people navigate an ongoing process of spatial production, resulting in a diversity of lived experiences occurring simultaneously within a single physical setting. As introduced in the previous chapter, Lefebvre's (1974) understands the world to be a product of perceived (first space) and conceived (second space), which is combined to create the lived experience (third space) (p. 26). For example, this means that a person's construction of their childhood home would be a product of what the house looks, smells and sounds like (first space), combined with their interpretation of the events and relationships connected with the place (second space) to create their lived experience (third space). Thus, it follows that the lived experience of boarding school for Aboriginal and Torres Strait Islander students is impacted by:

- 1) first space - the tangible qualities of the physical environment such as the size of the buildings, the look and style of furniture and the quality of lighting;
- 2) second space - the interpretation of those qualities in relation to subjective factors such as worldview, intergenerational knowledge, memories, and personality;
- 3) third space - the individual evaluation by students of their sense of belonging in their boarding school.

This understanding required a methodological approach that could capture first and second 'spaces', building up to 'third space'. This meant that the methods needed to first capture participants' 'perceived' space; then their 'conceived' space; and lastly, bringing these together to evaluate overall lived experience of belonging.

This process is underpinned by idealist and constructivist positions. These align with the third space theory reviewed in the previous chapter, in this case the social experience of boarding school spaces is subjectively constructed. From an idealist position, this means that the reality of sense of belonging in boarding school is not considered an objective state, but instead it is experienced by each person, in response to many internal and external factors. In this way, an idealist ontological position accepts the occurrence of multiple realities within the same social phenomenon, the implication of which in this context is that multiple experiences of sense of belonging can exist within the same boarding school. As Gray (2014) puts it, 'multiple, contradictory but equally valid accounts of the world can exist' (p. 20). This means that truth and meaning 'are created by the subject's interactions with the world' (Gray, 2014, p. 20).

An idealist approach is aligned to the aims of this research as it promotes a focus on the subjective views of participants, acknowledging that their contributions do not represent a unified and single experience, but are multiple and varied. As is detailed in the chapters 4-8, there were many contradictory accounts of boarding school by participants in this project, and in line with an idealist approach, these are all considered equally valid.

The issue of 'what counts as real' (Smith, 1999, p. 44) is important in this study. The level of social connectedness in a space that is 'real' to one person may be incongruent for another. Similarly, concepts around sense of belonging that are firmly established in one worldview may not translate between cultures. In this project, it is understood that 'ways of knowing' differ between cultures and people and, therefore, constructing a sense of belonging is not necessarily consistent between the non-Aboriginal researcher and the Aboriginal participants of this project. Dudgeon and Fielder (2006), argue that 'differences of cultures cannot be accommodated in a universalist framework' (p. 404), as this would assume that the world is experienced the same way by everyone. This way of thinking about reality (ontology) means that different worldviews will result in different ways of knowing (epistemology). By

extension, different ways of knowing are grounded in who we are and how we learn, also understood as 'worldview'.

In line with a constructivist position, it was considered important that this research foreground descriptions of space (from the perspective of residents) over mathematical or formulaic site analysis. Again drawing on Lefebvre's work (1974), this research responded to the view that space has historically been 'appropriated by mathematics', the practice of which has 'claimed an ideological position of dominance over what space means' (p. 2). For example:

Within the spatial practice of modern society, the architect ensconces himself in his own space. He has a representation of this space, one which is bound to graphic elements - to sheets of paper, plans, elevations, sections, perspective views of facades, modules, and so on. This conceived space is thought by those who make use of it to be true, despite the fact - or perhaps because of the fact - that it is geometrical: because it is a medium for objects, an object itself, and a locus of the objectification of plans.

(Lefebvre, 1974, p. 361)

A similar view is taken by Smith (1999), who argues that the objectification of space through geometry does not allow for the political and intangible qualities of architecture to be examined. This has implication for the decolonisation of research methodologies, as she puts it:

Mathematics has constructed a language which attempts to define with absolute exactness the parameters, dimensions, qualities and possibilities of space... This view generates ways of making sense of the world as a 'realm of stasis', well defined, fixed and without politics.

(Smith, 1999, p. 51)

Interior spaces are the parts of built environments which people typically interact with directly, and as such the discipline knowledge for interior designers is concerned with the cognitive, sensory, bodily, emotional and social processes that affect lived experience to a greater extent than other built environment disciplines such as architecture, construction management, and urban planning. Therefore, it is a consideration in this research that interior architecture is an appropriate context with which to examine the idea of 'lived space' rather than geometry.

These discipline values diverge from what Lefebvre terms the 'logico-mathematical point of view' (p. 5). As Perolini (2011) argues, a prioritisation of the mathematics of space has contributed to the diminished value of interior design as a profession, compared for example to architecture. This research has been designed to resist the temptation of objectively quantifying or mathematically evaluating boarding school sites, focussing instead on the perceived role of physical space in the construction of belonging. This is not to say that tangible qualities (such as the size of windows, length of corridors, the colour of carpet) are not relevant to the current study, but rather it meant that they were considered important only in relation to how they affected the participants' experience of belonging. For example, if a student associated a long and narrow corridor with a feeling of imprisonment, then this is an important characteristic of the space to consider. However, the dimensions of the corridor did not need to be recorded to make this point, and in fact may have detracted from the experiential qualities being described.

3.2.3 Third space in research

Principles of third space theory informed the methodology of this research. Overall, third space was considered to be a versatile way of articulating 'middle-ness' between binary concepts, and as such provides a useful way of navigating and describing Aboriginal students' experiences of boarding school space in various ways. As Lefebvre (1974) puts it, the idea of space itself is inherent to an 'indefinite multitude' of domains;

*...each one piled upon, or perhaps contained within,
the next: geographical, economic, demographic,
sociological, ecological, political, commercial, national,*

continental, global. Not to mention nature's (physical) space, the space of (energy) flows, and so on.

(Lefebvre, 1974, p. 8)

In line with this, there are many conceptions of third space. In Table 12, the five concepts of third space that were considered to be most relevant to the current topic are listed. As already presented in 2.5, the key characteristics of each of these theories are also listed. In the right-hand column, a summary of how these characteristics implicate methodological choices are shown. These implications are aligned with the qualitative and constructivist epistemological positions that are called for in the existing literature about Aboriginal young people's lived experiences. Further, they suggest a need for consideration of 'space' within the data collection itself.

Table 12: Third space theories in methodology

Third space theory	Implication for methodology
'Third space' <i>(Lefebvre, 1974; Soja, 1996)</i>	
Space is socially produced. First space is the 'perceived'. Second space is the 'conceived'. Third space is the 'lived experience'.	Reality (lived experience) is socially produced. There can be multiple realities in a single setting. The research methodology should allow for subjective lived experiences to be recorded.
'Third place' <i>(Oldenburg, 1989)</i>	
Third place is neither home (first place) or work (second place). Third places have a social function for neighbourhoods, e.g. a pub, café, or library. Publicly accessible, locally appropriated, "Ordinary".	As with the design of places, the research methodology should create a space with a feeling of community and acceptance. The research methods should be social, accessible, able to be appropriated to different situations, and feel 'ordinary'.
'Third space' <i>(Bhabha, 1994)</i>	
Third Space is between precolonial (first space) and postcolonial (second space). A product of hybrid cultures. Acknowledges multiple identities.	The research methodology must be responsive to precolonial and postcolonial worldviews. Aboriginal and Torres Strait Islander students are not a homogenous group, and as such multiple identities and perspectives should be allowed for in the research methodology.
'Holding space' <i>(Elston et al., 2003)</i>	
Space that is held for Indigenous voices to be heard in academic institutions. Has inner (private) and outer (public facing) layers.	The research methods should prioritise the voices of Aboriginal and Torres Strait Islander students. Student interaction with the research is considered to be a public facing 'outer layer' of their inner worlds, especially as the researcher is not an Aboriginal person.
'Counter space' <i>(Mayeda et al., 2014)</i>	
Space created in reaction to a dominant culture Culturally driven. Provides access to a non-competitive environment.	The research setting should provide space for Aboriginal and Torres Strait Islander students to communicate in their own way. Student interaction with the research should be culturally appropriate and non-competitive.

3.3 Participatory Action Research

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' (Chilisa, 2012, p. 42). Within the broad field of qualitative research, Action Research is defined primarily by recurring stages of inquiry, action and reflection. It is useful 'where flexibility may be required, or where ecological validity is more salient than repeatability' (Downs, 2001, p. 136). This iterative approach forms a 'self-reflective spiral of cycles of planning, acting and observing, reflecting and then re-planning in successive cycles of improvement' (Kemmis, Nixon, & McTaggart, 2014, p. 2).

Within Action Research, Participatory Action Research (PAR) was chosen as a guiding methodology for this project. PAR, as used here, acknowledges the multiple world views of students and recognises that their experience of space may not be culturally neutral. This is due to the inherent recognition within participatory research that a researcher's worldview is not a universal one, and that communities in focus within research should be involved in its design. The idea established in the literature review, that spaces can be exclusive to some groups (Weisman, 1994) – such as in this case with Aboriginal students living in boarding schools – is extended here to the recognition that this exclusion can also occur in research. A cyclical and reflective practice of 'humility, inquisitiveness, and openness' has been argued as necessary to navigation different worldviews while engaging with Aboriginal communities (Wright, Lin & O'Connell, 2016, p. 83), and this can be facilitated by PAR.

The characteristics of PAR in research are comparable to the process of designing. PAR has been described as 'a philosophical approach to research that recognizes the need for persons being studied to participate in the design and conduct of all phases (design, execution, and dissemination) of any research that affects them' (Vollman, Anderson & McFarlane, 2004, p.129 in Macdonald, 2012, p. 38). In this way, PAR takes a similar position to concepts in architecture and design such as 'community led design' (Alexiou, Zamenopoulos & Alevizou, 2013) and 'co-design' (Zamenopoulos & Alexiou, 2018), which are typically used as a means of 'blurring and collapsing the boundaries between more traditional stakeholder roles' (Cook et al. 2017, p. 47). Further, PAR is especially suited to a design and architecture context as it has a close resemblance to typical design activity, which is iterative and cyclical by nature.

A strong natural alignment between the research methods and design practice is considered important in the current study. By engaging participants in an experience similar to a professional creative process, this would potentially increase the sense of reality and credibility in the data, while minimising the need to formally explain what was happening. In turn, this may also encourage more meaningful and actionable outcomes. The research process and resulting findings may subsequently be more recognisable, and by extension be perceived as more 'valid' to design practitioners (to whom the findings are directed), potentially increasing the interest and retention of the information. It was hoped that, in turn, this may make the ideas described by participants more likely to be applied in practice.

3.3.1 *Everyday life as practice*

But everyday life also figures in representational spaces- or perhaps it would be more accurate to say that it forms such spaces.

(Lefebvre, 1974, p. 116)

The primary aim of PAR is to 'improve practice, rather than produce knowledge' (Macdonald, 2012, p. 43). Another way of understanding this is that PAR is concerned with 'developing practical knowing', while being grounded in an acknowledgement of alternative worldviews (Reason & Bradbury, 2008, p.2). This pursuit of 'practical' knowledge means that action research is not isolated from practice, but rather interacts with it and potentially changes it.

This research interacts with 'practice' in several ways. The first is through interaction with the design and construction industry, especially the work of interior designers and architects who are engaged in boarding school projects. Secondly, the research interacts with the practice of education, namely, the staff of schools and other organisations responsible for planning and delivering boarding school programs. More broadly, there are implications from this research for public policy and other guideline development, in that there are currently no guidelines for the design of boarding schools that address student wellbeing, especially for Aboriginal and Torres Strait Islander students. In these ways, this research actively seeks to interact with the focus community by changing future practice. This interaction has occurred throughout the project through the involvement of education professionals and boarding school community members in the Advisory Group and informal

conversations about the research. It continues beyond the completion of this thesis through the development of an illustrated book of findings (appendix A), a resource that will be shared with relevant organisations, practitioners, and community members.

Practice can also be understood in terms of daily life. In the case of this research, this is understood as the day-to-day activity and experiences of Aboriginal students who live in boarding schools. Kemmis, McTaggart and Nixon (2014) suggest that PAR involves the investigation of 'actual practices, not practices in the abstract' (p. 20). They describe these practices as being formed not by abstract social structures, but by real places, described as sites. They say that 'our view is that it is sites that hold practices in place—real, everyday places like your home, or your school, or the supermarket where you shop' (Kemmis, McTaggart, & Nixon, 2014, p. 56). This research extends their view that practice should be investigated in terms of 'the real, material, [and] concrete' to include the same treatment of the 'particular places' that the practice is described as being informed by (p. 20). Subsequently, the overall goal of PAR in this project is to interact with the 'every day' practice of boarding school by students, via the sites that they occupy. Finally, within this investigation, the role of the researcher is considered to have elements of both insider and outsider status.

3.3.2 Inside and outside perspectives

Given that the researcher is a non-Aboriginal person working with an Aboriginal community, consideration was given to the emic (inside) and etic (outside) perspectives embedded within the project. It is acknowledged that these perspectives are underpinned by different worldviews, and as such may lead to different constructions of knowledge. As described by Macdonald (2018):

The first knowledge, is the emic understanding of Aboriginal and Torres Strait Islander cultures by those with lived experience, whilst the second, is the etic understanding of non-Indigenous people regarding the experience of being Indigenous.

(Macdonald, 2018, p. 206)

While it is possible to research a phenomenon from an etic position and this can have some advantages, 'participants have special access to how social and educational life and work are conducted in local sites by virtue of being ' insiders' (Kemmis, McTaggart, & Nixon, 2014, p. 5). Further, there is an alignment in this project with the view that there are 'special advantages' to insider perspectives, as they deeply understand the ways that practices are 'enmeshed' with sites (Kemmis, McTaggart, & Nixon, 2014, p. 5). These perspectives, therefore, were prioritised over that of the outside researcher as much as possible.

In this project, these positions are addressed by adopting an epistemological approach that is 'characterised by the absence of a need to be in control, by a desire to be connected to a moral community where a primary goal is the compassionate understanding of another's moral position' (Bishop, 1998, p. 203, Denzin & Lincoln, 2008, p. 11). Additionally, the 'role of the outsider' has not been completely preserved as the researcher did not attempt to 'see things in a disinterested or objective way' (Kemmis, McTaggart, & Nixon, 2014, p. 5). This is because there are advantages for qualitative researchers in taking a somewhat 'naive' position (Kvale & Brinkmann, 2009), specifically the researcher approached the yarning and drawing with genuine curiosity, and an expectation for the participants to be knowledge holders about boarding school architecture. This complimented, rather than resisted, the researcher's outside status and lack of personal exposure to the settings in focus, allowing the participants to be in control of the researcher's access to information. In this way, outsider status was used as a way of reducing the researcher's sense of control over the data collection without relying on artificially constructed social dynamics.

In addition to the researcher being unfamiliar with Aboriginal students' boarding school experiences, the students could also be unfamiliar with ways of communicating and analysing the built environment. Even so, it was considered important that students be provided with the opportunity to explain their perceptions of the physical environment from their own perspective, whilst acknowledging that they may lack confidence or familiarity with architectural communication styles and concepts. Thus, the need to empower student participants with the skills to explain and evaluate their boarding school environments, without supplanting their perceptions with the

researcher's own impressions, was identified as a key methodological issue. This further challenged the idea that the role of the researcher could be passive, instead requiring a continual shift in teaching and learning roles throughout the data collection. In this way, insider and outsider perspectives were not static, but rather were acknowledged and examined continually throughout the project.

(Note: The way that inside and outside perspectives affected interpretation of the data will be discussed further in 3.6.)

3.3.3 Creating communicative space

Participant discourse is an essential characteristic of PAR, which is achieved by 'opening up communicative space' (Kemmis, McTaggart, & Nixon, 2014, p. 28). This is also understood in the current research in terms of third space, as informed by the theories discussed in Chapter 2 and summarised in Table 8. As Kemmis, McTaggart, and Nixon indicate, 'the formation of public spheres creates the possibility that knowledge and action are nurtured together to have both validity and legitimacy (together) in the eyes of participants, and also among others (Kemmis, McTaggart, & Nixon, 2014, p. 36). As participants were separated by geographic and administrative barriers from attending different schools, this was a methodological challenge in the current study.

These 'spheres' do not necessarily have to be physical places or gatherings, but can also include 'communications between participants who are unknown to one another or anonymous from the perspective of any one individual', for example, 'digitally, via email or the internet' (p. 44). Whatever the mode of communication, the result should be a 'network of communication' in which the 'positions and viewpoints arrived at through open discussion and unforced consensus will command the respect of participants' (Kemmis, McTaggart, & Nixon, 2014, p. 44). Characteristics have been suggested for the creation of such spaces by Kemmis, McTaggart, and Nixon (2014), and these have been combined with previously described considerations for creating 'third space' as summarised in Table 13. Application of these points are discussed in 3.5.

Table 13: Characteristics for the research methods

Source	Characteristic
'Third space' (Lefebvre, 1974; Soja, 1996)	The research methods should allow for subjective lived experiences to be recorded, i.e. be qualitative.
'Third place' (Oldenburg, 1989)	The tone of the data collection should be social, accessible, and able to be adapted to different situations. It should feel 'ordinary'.
'Third space' (Bhabha, 1994)	The research methods must allow for and be responsive to different worldviews.
'Holding space' (Elston et al., 2003)	The research method should prioritise the voices of Aboriginal and Torres Strait Islander students over that of the non-Aboriginal researcher.
'Counter space' (Mayeda et al., 2014)	The research methods should be culturally appropriate and non-competitive. Aboriginal and Torres Strait Islander student participants should be encouraged to communicate in their own way, i.e. informally.
'Public sphere' (Kemmis, McTaggart, & Nixon, 2014)	Participants of the research should engage in discourse through a public sphere that is: <ul style="list-style-type: none"> • Self-constituted, • voluntary, • autonomous, • in response to legitimation deficits (things are not quite right), • constituted for communicative action, • inclusive and permeable, • communicate in ordinary language, • presuppose communicative freedom, • generative communicative power, • indirect impact on social systems, and are • often associated with social movements (p. 44).

These characteristics, particularly the 'public sphere', were facilitated by data collection via a large roll of brown paper - discussed further in 3.5.2.

3.3.4 Nested spirals of action

The multiple cycles of planning, acting, and reflecting that makeup PAR have been described as a 'spiral of action' (Kemmis, McTaggart, & Nixon, 2014, p. 18). However, as described by Stringer (2014), inquiry into 'complex problems and issues' can require adaptation of this format (p. 4). The typical spiral was adapted in this project so that the procedure for data collection contained a micro spiral nested within a

macro spiral. Figure 3 illustrates the way that this nesting occurred in the current study. There were four 'macro' cycles of action, 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 this, participant involvement is represented as a series of 'micro' cycles that form an inner layer of reflective practice. As will be discussed later in 3.6, this methodological structure correlated with a dual approach to data analysis.

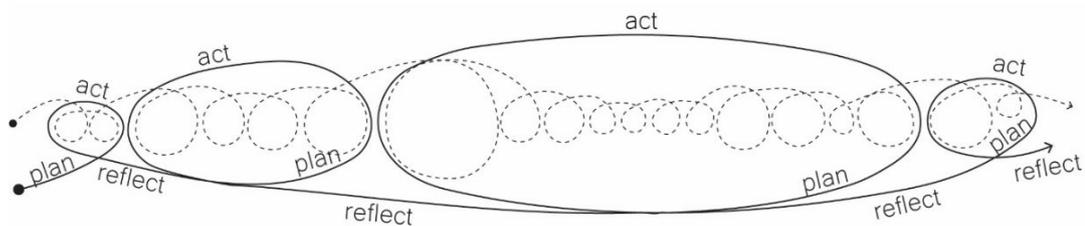


Figure 3: Spirals of action as they occurred in this project

The interpretation of PAR as a double spiral ensured that both inside and outside perspectives were acknowledged within the research, without dismissing either. The different sizes of the internal cycles reflect the sizes of the participant groups, and the unequal weighting of the macro cycles is in line with the nature of the project, in which some stages were larger and more time intensive than others. It is also worth noting that although the representation here is of smooth and complete circular movements, 'action research is rarely as neat as this spiral of self-contained cycles of planning, acting and observing, and reflecting suggests' and that in reality 'the process is likely to be more fluid, open and responsive' (Kemmis, McTaggart, & Nixon, 2014, p. 18). This was similarly the case in this project, in which there was often overlap between actions and non-linear progress in the data collection.

3.4 Developing the method

Under the direction of the Advisory Group (all of whom were women, and most of whom were Aboriginal people), a participatory method was developed that combined semi-structured yarning with drawing around a continuous roll of brown paper. The development of this method is described here in the order of 'Yarning as a research

method', 'Drawing as a research method', 'A flexible guide for yarning', and 'Issues with the initial approach'.

3.3.1 Yarning as a research method

Yarning is a qualitative research method that prioritises Aboriginal and Torres Strait Islander voices. It was selected as the primary method of data collection in this project. Bessarab and Ng'andu (2010) describe yarning as an 'Indigenous form of conversation' that is 'a dialogical process that is reciprocal and mutual' (p. 37-38). Yarning refers to storytelling and knowledge sharing in Aboriginal languages and is recognised as a culturally appropriate way to gather information with Aboriginal and Torres Strait Islander people (Bessarab & Ng'andu, 2010). In a research context, yarning circles can be used as an 'open-ended method to engender story' (Rennie, 2018, p. 84). By extension, yarning about a story or an experience does not always follow convention and can 'meander all over the place' (Bessarab & Ng'andu, 2010, p. 39). This is a key attribute to understand for those wishing to access stories in this way, as they 'do not always fit into neat little categories' and may follow a different convention to what the researcher is expecting (Geia et al., 2013, p. 41). In contrast to the way that 'rigour' is often ensured in western research through structure and consistency of dialogue, it is proposed that 'the rigor in the yarn is to listen' (Geia et al., 2013, p. 41). Listening may be at the expense of preconceived structure and process, so it is important that this must be done without interrupting the flow of a story while simultaneously 'looking for threads that relate to the research topic' (Geia et al., 2013, p. 41). The enforcement of rigidity serves only to create 'unnecessary difficulties' for both participants and researchers (Wright, Lin & O'Connell, 2016, p. 86).

Storytelling, which is akin to yarning, also has some precedent as a research method in the form of 'narrative inquiry' (Clandinin, 2007). These methods have commonalities but are fundamentally distinct. Yarning is an intentionally 'informal and relaxed discussion' in which both the researcher and participant build a respectful relationship while sharing knowledge with each other (Opie et al., 2019; Geia et al., 2013; Bessarab and Ng'andu, 2010). Some narrative inquirers 'see themselves and their participants at more of a distance' and consider the 'relational aspects' between researcher and participants as 'less important' (Clandinin, 2007, p. 5). Hence, this is

a problematic approach for research with Aboriginal people for whom relatedness is an important foundation of knowledge and relationship building (Smith, 1999).

Further, yarning is inherently aligned with the key characteristics of the proposed 'third space' approach to research, while narrative inquiry is not connected to this sort of atmosphere or setting by default. Dudgeon and Fielder (2006) propose that third space storytelling is a 'critical method' for bringing services together with Aboriginal and Torres Strait Islander people, and Elston (2013) further suggests that third spaces allow renegotiation of what is needed to ensure self-determination as it is embedded in the transformation of social circumstance. In other words, narrative inquiry *can be* participatory, but does not *have* to be, while yarning is underpinned by the flexibility and control afforded to participants, both of which were considered as essential third space characteristics to this study. Yarning is an 'equally important' method for the work of non-aboriginal researchers, as it 'provides culturally secure space' for participants to tell their stories, and gives a tangible identity to all involved (Geia, et al., 2013, p. 16). For these reasons, it is a complimentary tool within PAR (Fredericks, et al., 2011).

3.3.2 Drawing as a research method

Drawing is shown to be a 'highly efficient and ethically sound research strategy' for working with young people in a variety of cultural contexts (Literat, 2013, p. 84). Drawing, using Arts based methods (ABM), lets visual artefacts evolve organically in response to live conversation, making it suited to use alongside yarning. It is also useful in tackling complex concepts, such as a sense of belonging, as they can be built through a series of exercises (Awan & Gauntlett, 2011).

ABM have been described as aligned 'with an Indigenous research agenda through innovative and relational methodologies' and can refer to 'an array of modalities such as theatre, visual arts, music, storytelling, writing, and dance' (Hammond, Gifford, Thomas, Rabaa, Thomas, & Domecq, 2018, p. 261). Within ABM, visual arts are most common. This may reflect the 'cultural relevance and appropriateness of using imagery and oral storytelling to impart indigenous knowledges' (Hammond, et al., 2018, p. 273). Perhaps the most common example of a visual arts based method that has been adopted widely in an Aboriginal research context is that of Photovoice (Wang & Burris, 1997), which 'with the growing mass production of digital cameras

and phone cameras' has been highlighted as 'increasingly versatile, mobile, and affordable' (Hammond, et al., 2018, p. 273). Adaptations of photovoice to an Aboriginal context include Photoyarn (Rogers, 2018) and the Gaataa'aabing method (Bennet, Maar, Manitowabi, Moeke-Pickering, Trudeau-Peltier & Trudeau, 2019). In the existing literature, a need for more research of ABM 'outside of photovoice' has been highlighted, along with further assessment of the power ABM in relation to a wider range of contexts (Hammond, et al., 2018, p. 274). Therefore, it was considered important in this project that the method be informed by existing evidence of the benefits of ABM with Aboriginal communities, while also being adapted to the specific context at hand.

Non-textual strategies have been recognized as highly versatile and effective research tools with young people (Literat, 2013, p. 85). Visual communication modes offer 'more nuanced depiction of lived realities, while simultaneously empowering the research participants and placing the agency literally in their own hands' (Literat, 2013, p. 85). These can be mechanical (photography and video) or non-mechanical (drawing and play dough). They may also be digital or non-digital (Literat, 2013, 85). It is important to consider that in comparison to purely text-based data collection, such as might happen in interviews and surveys, or in this case yarning, visual data collection can be time consuming and may be tiring for participants and may result in 'fatigue and drop out' (Babb, Robertson & Curtis, 2019, p. 64). In this research, the student participants did not have an existing relationship with the researcher and there was only limited free time within after school schedules in which the researcher could engage with students. So, it was determined that a simple and quick visual communication style could be a valuable support to the yarning.

A key consideration of this research was in how to capture the 'multi-dimensional nature' of spatial behaviour and relationships (Babb, Robertson & Curtis, 2019, p. 63). This was a problematic issue with respect to the younger student participants because they may have lacked confidence or experience in thinking this way. Therefore, within the realm of visual communication, drawing was identified as an appropriate method for testing and expressing spatial subjects. Drawing is a common communication method in architectural practice, in which ideas that are 'clearly drawn and narrated' become associated with 'trust' and 'neutrality' (Creigh & McGann, 2019, p. 3). As a research method, 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). Additionally, drawing can be 'co-constructed and playful' in a way that is 'not dependent on linguistic proficiency' (Literat, 2013, p. 84). This is especially relevant to this study, in which the researcher was not proficient in the student participants' first languages.

3.3.3 A flexible guide for yarning

A semi-structured framework was developed as a guide for the yarning and drawing. Based on those considerations outlined above (i.e., accommodating different worldviews, and being open-ended, guided by participants, building towards concepts iteratively), it was essential that this framework was not overly prescriptive. However, it was also important that the participants' attention be drawn to certain elements of their boarding school experience, especially those that relate the role of the built environment to their experiences of belonging, which might not be their usual way of thinking. To do this, the spatial components of a sense of belonging described in 2.3 were translated into general questions. This is shown in Table 14, which on the left-hand side presents the measurable attributes of each theoretical component and on the right shows questions that could elicit a relevant comment from participants.

Table 14: Ways of measuring a sense of belonging

Components of belonging	Potential measuring questions
Place Identity	
Continuity of place	<ul style="list-style-type: none"> • Where is the place? • Is there anything that makes this place special or unique to you? • Does this place remind you of other places? • Do you feel like you can be yourself in this place?
Distinctiveness of the place	
Level of self-efficacy within the place	
Level of self-esteem within the place	
Place Attachment	
Residence length	<ul style="list-style-type: none"> • How long have you been in this place? • (If in the past) Have you been back to the place? • How would you feel if things had changed a lot since you were there? • Do you think this place has changed you in some ways?
Sense of security	
Level to which place is symbolic of past traditions	
Collective Memory	
Degree of access to shared spaces for events and social interaction	<ul style="list-style-type: none"> • Why did you come to this place? • Do you know people that lived here before you did? • What do you know about the history of the place? • Where do you spend time with friends in the place? • (If in the past) Is there anything in the place that shows that you were there?
Degree of residence continuity	
Conservation of historic areas, old buildings, and local names	
Spatial Knowledge	
Degree of familiarity	<ul style="list-style-type: none"> • Describe or draw the place. • How would you describe the place to someone who needed to find their way around? • What are the main parts of the place? • How did the place seem when you first arrived compared to when you left?
Level of procedural knowledge	
Level of landmark knowledge	
Level of survey knowledge	
Physical comfort	
Sense of physical safety	<ul style="list-style-type: none"> • How do you feel in the place? • Is there anything about the place that makes you worried or scared? • How physically comfortable do you feel in the place? • Do you feel like the place suits your needs?
Level of physical comfort	
Functionality	
Environmental Symbols	
Level of familiarity with symbols	<ul style="list-style-type: none"> • What sort of symbols or artwork were displayed at the place? • What do these tell you about the place? • Do these make you feel more or less connected to the place, and why?
Level of identification with symbols	
Feeling of connection	

Following this initial translation of theory to questions, a semi-structured format for the questions was developed. The five stages of this format were *Introduction*, *Belonging*, *Boarding School*, *Belonging in Boarding School*, and *Design Themes* (Table 15). The aim of this order was to iteratively build upon the students' awareness of how their sense of belonging could be impacted by the built environment and, in turn, encourage them to propose ideas for how boarding schools should be designed in the future.

Table 15: Five phases for yarning

Yarning Stage	Purpose
Introduction <i>(build familiarity)</i>	General discussion of who participants are, where they are from, age, school, interests, etc.
Belonging <i>(establish reference point for belonging)</i>	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. Lived experience.
Boarding School <i>(encourage awareness of design)</i>	Participants describe the architecture and overall feeling of boarding school. Perceived space.
Belonging in Boarding School <i>(connect belonging with design)</i>	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. Conceived space.
Design Themes <i>(data analysis and translation to design actions)</i>	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. Lived experience.

Next, general questions for measuring the components of a sense of belonging (Table 14) were adapted to one of the stages of the yarning (Table 15). The result of this are seen in Table 16, which also demonstrates the simplification of some questions to more general prompts to allow for open-ended discussion, which is more in line with the non-prescriptive nature of yarning. Over time, these prompts were adjusted to be more aligned with the researcher's verbatim speaking style to increase the flow of the

conversation. It should be noted that the questions included in this table were intended as a guide only, and not an interview script. The purpose of this was that the researcher had prompts ready to progress and direct the conversation if needed.

Table 16: Guide for yarning

Yarning Stage	Example questions
Introduction <i>(build familiarity)</i>	General introduction (while getting set up) <ul style="list-style-type: none"> About me, introduce research, explain who is involved, overview of the session, explain recording/transcription, info/consent. What's your name? Where are you from? What year are you in (subjects)? How long at boarding school? Holidays/mid-term breaks- how long to get home from boarding?
Belonging <i>(establish reference point for belonging)</i>	What do you think sense of belonging is? Examples of places where you feel a sense of belonging? What is that place like (physically)?
Boarding School <i>(encourage awareness of design)</i>	Describe or draw boarding school: <ul style="list-style-type: none"> Where is it? What are the main parts? How would you describe it to someone who needed to find their way around? (me) What symbols or artwork? Does it remind you of other places? Where do you spend the most time? Where do you and your friends go? Do you know anything about the history? Do you know people that lived there before you did? (If in the past) Is there anything in your boarding school that shows that you were there? Anything you miss?
Belonging in Boarding School <i>(connect belonging with design)</i>	Based on your definitions, do you think you feel a sense of belonging in your boarding school? <ul style="list-style-type: none"> Do you feel like you can be yourself there? How did your boarding school seem when you first arrived? Do the artwork and symbols make you feel more or less connected to the place, why? How physically comfortable do you feel at boarding school? <ul style="list-style-type: none"> Do you feel like the spaces suit your needs? Does anything that makes your boarding school special? <ul style="list-style-type: none"> (If past) Have you been back to the place? How would you feel if things had changed since you were there?
Design Themes <i>(data analysis and translation to design actions)</i>	Based on everything we've talked about, how do you think boarding schools should be designed in the future? <ul style="list-style-type: none"> What is the most important thing that someone should know if they are designing a new boarding school?

It was important that the yarning start with an introductory phase, so that some level of familiarity, connections, and trust could be established, and that this be embedded within the research process. The second phase involving having participants define a sense of belonging, and where they recognised it in their own lives. The purpose of this was to recognise that feeling a sense of belonging is a subjective construction and, therefore, must be measured by participants in relation to their own lived experiences. This also reduced the risk of the researcher applying 'stereotypes to communities and individuals' and allowed the participants to control the direction and focus of the knowledge that they shared (AITSIS, 2012, p.4). The focus of the yarning was then directed towards the boarding school. In this third phase, participants were asked to describe (verbally, visually, or both) the physical design of their boarding schools with as much detail as possible, bearing in mind that the researcher was not familiar with the environment. The intention of this stage was to encourage participants to recall the physical qualities of the architecture, initially without judgment or evaluation, to orientate the researcher and to bring these elements forward for their own reflection. The fourth stage of the yarning was about evaluating whether the participants' understanding of a sense of belonging (as they had previously defined it) was aligned with their description of the boarding school. The extent to which this was true and why this was the case was then discussed and analysed together. Finally, within every yarn the participants had a chance to reflect and summarise what they thought were the most important themes from the session overall (a form of emic analysis with alignment to a constant comparison approach). In this phase, the researcher would ask a variation of the question: *'Based on everything we've talked about today, what do you think is the most important thing for architects and designers to know if they are building a new boarding school, that they might not know if they didn't speak to you?'* This allowed the participants to engage in the search for 'threads that relate to the research topic' at a point when they were most informed and familiar with the concepts in focus (Geia et al., 2013, p. 41).

As was the intention, the execution of this framework within the yarning was refined over the course of the data collection as the researcher reflected and responded to each session. However, fundamentally, the structure and theoretical underpinning remained constant throughout the project.

3.3.4 Issues with the initial approach to space and drawing

A pilot study was conducted to test the yarning format, and also to see how visual methods could best be integrated. Importantly, this was an opportunity for direct feedback about the research from a past boarding school student, which was a point of critical reflection for the project in collaboration with an Aboriginal Cultural Advisor and the Advisory Group (these roles are discussed further in 3.3.3 Ethical Issues). This allowed some assumptions made during the methods development to be challenged, and the method improved prior to the main data collection.

The initial method being tested was comprised of 1) yarning guided by the semi-structured framework, and 2) drawing on A4 pieces of white paper. At this point, specific activities had been assigned to each stage of the yarning. The participant was also asked to bring some photos of her time at boarding school to assist with the discussion. After the pilot study, the photography element was removed from the method and not used for the main data collection (explained below).

The first part of the pilot study was with the Cultural Advisor to the project, who has senior community status in the researcher's home-town and with whom there was a high level of personal familiarity through past work and family connections. This meeting was held in a local café of the Cultural Advisor's choosing. The conversation was audio recorded and information was provided about the project. It was explained that feedback and comments about the conversation (including criticisms) were encouraged. The researcher provided pieces of paper and a mixture of pencils for drawing, and the semi-structured yarning format was followed. This meeting was particularly valuable, as the Cultural Advisor reflected on her own experiences attending a rural boarding school in Western Australia some decades previously, providing the researcher with a greater knowledge of personal and historical context for the topic. Though not included in the main data, the time and stories shared in this meeting were generous and very important for the study.

On the Cultural Advisor's recommendation, the pilot study was then repeated with her granddaughter, who at the time had recently graduated from a school in Perth - her attendance had involved living in a group hostel. This was taken as indication that the Cultural Advisor was confident that the methods would be appropriate for engaging

with young Aboriginal people. For example, she said that *'you won't have a problem with them, with them talking and telling you, they'll be able to tell you lots.'*

This second part of the pilot study was conducted at a café with the Cultural Advisor's granddaughter, who was nineteen at the time of meeting and had graduated year twelve in 2016. It was made clear that although data from this interview would be used in the main research, it was primarily a practice of the methods that were to be used with other participants in the future, so active feedback to the process was encouraged.

It should be noted that this recording has been included within the main data, but has been considered differently due to the participants experience of living in a group hostel rather than a boarding school, because the method was not able to be completed for lack of time, and because the method changed significantly after this session. Despite these limitations, this participants' perspective was considered valuable beyond the testing of the method. For example, the participant described finding out that she was attending boarding school at very short notice which affected her sense of control over the situation, the challenges in adapting to the new environment, the physical differences between school and home, and some of the ways that the design of the group hostel may have affected her sense of ownership and attachment (for example, this was described as a period home in the Western suburbs of Perth, which gave it a strong character and a 'homey' feel).

Several problems with the initial method emerged from this meeting. At times, the natural flow of the conversation was restricted by the interview questions and prescribed drawing activities. Although intended to set a casual tone, the research setting of a small table at a busy café meant that there was no other option than to sit directly face to face, which may have contributed to a sense of formality.

This was also not helped by the fact that during the visual components of the method (which at this point were separate to the yarning), the researcher had nothing to do except watch the participant draw. Though reassured that the drawing did not need to be careful or of a high quality, the participant was often worried about being *'not the best drawer'* and expressed hesitation to begin a new image on each new piece of blank white paper. At the end of the interview the participant was asked about potential changes to the method and it was suggested that being in a group with

friends might stimulate more memories and ideas. It was also noted that although the researcher's meaning in some questions and activities were hard for the participant to understand at first, once an example had been shown it was much easier. For example, when the researcher suggested to 'draw the journey between home and boarding school', the participant was at first confused as to whether this was meant in a literal or in abstract way, so the researcher drew an example of an abstract map upon which different characteristics of the experience could be noted. After this, the participant created a map based on her experience that combined both literal and metaphoric elements.

The use of a 'birds eye view' (in plan) drawing style was observed as being the easiest way of communicating the design of buildings for the participant. However, when shown some examples of other views (for example a 3D perspective or elevation) the participant was also able to draw in this way (see Figure 8 for examples of the participant drawing in two different views). In response to these observations, it was determined that in the main study the participants should be able to draw in whichever style they like, but that they should have access to examples of different kinds of drawings as a guide so that they were not restricted.

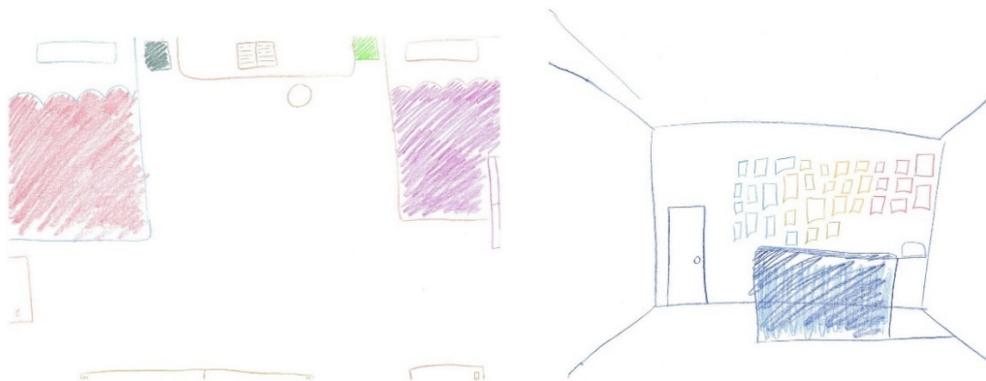


Figure 4: Examples of participant drawing in multiple views.

It was interesting to note that although the setting, equipment, and method were almost identical between the two pilot studies, the issues of formality and self-consciousness (notably by both the researcher and participant) that arose with the younger participant were not apparent during the first pilot study with the Cultural Advisor. Upon reflection, this is likely due to the senior community status and the higher degree of personal familiarity that existed between the researcher and the Cultural Advisor. This perhaps made it more natural for the researcher to default to a 'listening' role within this dynamic, whereas in the second pilot study the researcher felt a higher level of responsibility to guide the process. The difference in these two interactions suggested that further measures were needed to ensure that the yarning and drawing with younger participants would be comfortable and informal enough for them to engage, and importantly also to lead, the session. This was also a point of reflection for the researcher to consider ways of reducing un-intended and imposed formality, to practice the balance between listening and guiding, and to further afford participants with a sense of control. It was determined at this point that it would be appropriate for yarning with the boarding school staff participants (most of whom were members of the Advisory Group) to continue the method in a relatively unchanged way, as the dynamic would be similar to that with the Cultural Advisor. In these sessions, it was thought that it would be okay to rely more heavily on verbal communication rather than drawing, as some familiarity and rapport had already been built prior to the data collection.

After the pilot studies, the questions and drawing activities within the semi-structured yarning format were simplified. The requirement for participants to bring photos to reflect on was completely removed, due to the difficulty in explaining the type of photos needed to the participant prior to the study. Taking away this element also eliminated the need for students to prepare any material prior to meeting, making it easier for them to participate in the first place and simplifying the overall experience. This was an important consideration regarding the tendency for young people to 'fatigue and dropout' in visual research (Babb, Robertson & Curtis, 2019, p. 64).

Another measure taken was for the researcher to also participate in the drawing activities. This removed the part of the yarn in which the researcher could only watch and wait, and provided an opportunity to give examples of potential drawing styles that the participants could use (e.g., mapping, drawing in plan, perspective). This gave a tangible acknowledgement of the non-subjective role of the researcher in the data

collection process. In response to the assumption that it was possible to act as a neutral observer in the project, this instead positioned the researcher as fellow 'human being' with an identity and position on the topics at hand (Bessarab & Ng'andu, 2010, p. 42).

A key reflection from the pilot study was that the individual pieces of white A4 paper provided to the participant were not conducive to the informal and messy drawing style being encouraged, and perhaps even exacerbated anxiety about the quality of images. To address this, it was decided that a large roll of brown paper would be used as the primary drawing material for all of the student yarns. The procedure for this is described in 3.4.3.

3.5 Data Collection

This section of the chapter presents the original intention of the data collection and then what actually occurred. This information is described in the order of 'Recruitment of participants' and then 'The big roll of brown paper'. First, three main factors varied between the original plan for the project and the final result: 1) that originally the focus was to be only on Aboriginal young women; 2) members from the home communities of students would also be consulted; and 3) that the students would show the researcher around their boarding schools prior to participation. As will be explained here, the research panned out differently to what was expected (a common characteristic of action research projects).

The original plan for this study was that the focus be exclusively on the experience of Aboriginal and Torres Strait Islander young women, but eventually 5 male students also participated (2 current students and 3 past students). Noting that no participants self-identified as Torre Strait Islander, this shifted the research focus from 'Aboriginal and Torres Strait Islander young women' to 'Aboriginal young people'. This is now reflected in the research title, question, and objectives. The reasons for initially recruiting only young women were: 1) at the time of writing there were no studies that focused solely on Aboriginal and Torres Strait Islander young women's experiences of boarding school in Western Australia, 2) it was assumed that there would be gendered differences in boarding school experiences, as most private boarding schools are separated by gender, and, 3) it was assumed that it would be easier to access and build rapport with young women, as the primary researcher is also a

woman. The reason that five young men participated was that two of the group yarns were held in mixed gender situations (a mid-term school camp and a university college residence) in which it would have disrupted the friendly social atmosphere to ask only the boys to leave. These yarns ended up being extremely valuable, as the students could compare experiences from their different boarding schools. Though it was not the objective of this research to make such comparisons, this was useful in building a broader context.

As an outsider to the boarding school communities in focus, it took time for the researcher to build familiarity and relationships. The original intention of the project was also to engage with members from the participants' home communities. However, in the end the participants were selected only from within boarding school, which is only one 'world' of the two in which the student participants are involved. Similarly, this project does not directly capture the perspectives of students who left boarding school before completing year 12. Though some participants did refer anecdotally to reasons that Aboriginal students sometimes return home, this is a limitation of the research and the findings may have been different in response to this perspective.

In total, fifty-two participants representing eight independent schools in Western Australia were involved in the research. They participated across seventeen separate sessions. Note that some past student participants joined the yarning part way through and did not disclose which school they had attended, therefore, the number of schools represented could be higher. In line with the credibility principle of data triangulation (discussed further in 3.7), the experience of belonging in boarding school was documented from the perspective of three different categories of participants; namely, current students (for an inside perspective), past students (for an outside perspective with inside experience), and boarding school staff (also for an outside perspective). Therefore, of the total of fifty-two participants, twenty-seven were current students (aged sixteen and over), eighteen past students, and seven experienced boarding school staff members. The goal of this was that 'individual viewpoints and experiences could be verified against others and, ultimately, a rich picture of the attitudes, needs or behaviour of those under scrutiny may be constructed based on the contributions of a range of people' (Shenton, 2004, p. 66).

3.5.1 Participants and setting

Snowball sampling was used to recruit the participants for this study (Figure 9). Snowball sampling is a qualitative recruitment method in which a small group of people who are relevant to the research topic are approached by the researcher to nominate likely future participants, who in turn are also invited to nominate participants that they think may have a significant or different experience to theirs (Bryman, 2012; Stringer, 2008). Snowball sampling is a useful method of recruitment when the researcher is outside of the community in focus, as was the case in this project. It is also suitable to a participatory methodology, as participants have control of who is involved in the research. The limitation of snowball recruitment is that it typically does not produce a representative sample of the population being studied (Bryman, 2012). However, for this project this was considered an acceptable characteristic as the geographically diverse nature of boarding school communities means that any method of accessing a 'representative' sample have been difficult to obtain. It should be noted that many more people were recommended to the study than participated. The reason that this occurred was typically due to not meeting the study criteria or not being able to find a time and place to meet.

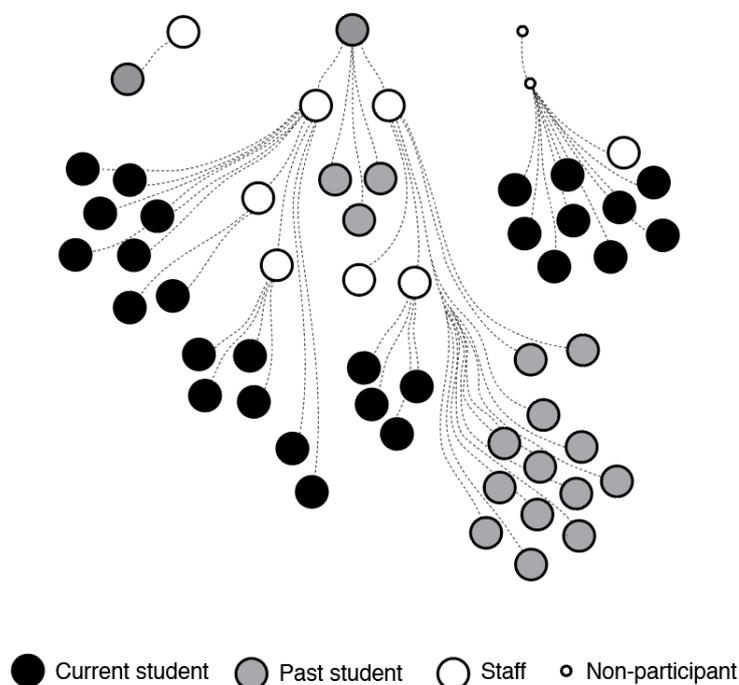


Figure 5: Participants were recruited using a snowball method

The first, and largest, category of participants were current boarding school students. The selection criteria for current students was that at the time of participation they:

- Identified as Aboriginal or Torres Strait Islander;
- Were over 16 years old (i.e., qualified as a mature minor);
- Were living in a Western Australian boarding school at the time of research.

The second category of participants were past boarding school students (note that one past student participant was a member of the Advisory Group). The purpose of interviewing past students was that they could offer a reflective perspective on their experience and the impact that their time in boarding school may have had on them in the long term. The selection criteria for past student participants was that at the time of research they:

- Identified as Aboriginal or Torres Strait Islander;
- Were over 16 years old (i.e. qualify as a mature minor);
- Had lived in a Western Australian boarding school within the last 10 years.

Staff members working in roles either directly within boarding schools or in closely related support programs were interviewed in the research (note that two staff participants were also members of the Advisory Group). The purpose of this participant type was that a broad perspective on student experiences could be given. The selection criteria for staff members was that at the time of participation they:

- Had extensive experience working with or supporting Aboriginal and Torres Strait Islander students in boarding schools;
- Had worked directly with students (as opposed to an administration role for example), and so had the ability to relay firsthand accounts of student experiences.

Table 17: Participant setting and details

Participant Code	Group size	Setting	Location	Aboriginal students	Gender in school
Current students (27)					
Current A 01-03	6	Common room	Rural	Only	Co-ed
Current A 04-05	3	Common room	Rural	Only	Co-ed
Current B 01-05	6	Mid-term camp	Multiple	Minority	Multiple
Current C 01	2	School dining room	Multiple	<i>Majority</i>	Co-ed
Current D 01	4	Common room	Metro	Minority	Girls only
Current E 01	2	Meeting room	Metro	Minority	Girls only
Current F 01	4	School library	Metro	Minority	Girls only
Past students (18)					
Past A 01	2	Study room	Metro	Minority	Girls only
Past B 01	11	Student lounge	Multiple	Minority	Multiple
Past C 01	4	Participant home	Metro	Minority	Girls only
Past D 01	1	Café	Metro	Only	Co-ed
Staff (7)					
Staff A 01	1	Common room	Rural	Only	Co-ed
Staff B 01	1	Café	Multiple	Minority	Multiple
Staff C 01	1	School meeting room	Multiple	Minority	Girls only
Staff D 01	1	School meeting room	Metro	Minority	Girls only
Staff E 01	1	School library	Metro	Minority	Girls only
Staff F 01	1	Common room	Metro	Minority	Girls only
Staff G 01	1	Participant's office	Metro	Minority	Girls only

Yarning with current and past students was held in small groups of various sizes (range 2 – 11) in places familiar to the participants (usually a common space in the boarding house) so that they 'hosted' the research. This was in response to an assumption common in similar research that a research setting should be neutral, or even that it can be. For current students this was either a common space at the students' school or within a social setting such as at a mid-term camp.

Due to their work and study commitments, yarning with past students always occurred in the evening. The participants in this group were of a similar age to the researcher, often with overlapping social networks and similar study commitments. Due to this, it was considered that the research setting should reflect a normal social situation, and that a genuine rapport as peers was the most appropriate way to share stories and build trust.

Yarning was held individually with boarding school staff members. Data collection with these participants was primarily verbal, and while drawing materials were provided,

they were rarely used. These yarns were in the participant's office, a school meeting room, in the boarding house common space, or at a café.

3.5.2 *The big roll of brown paper*

This section describes the use of a roll of brown paper as a procedural tool in the data collection. Yarning with all participants followed the previously described framework trialled in the pilot study; *Introduction, Belonging, Boarding School, Belonging in Boarding School, and Design Themes*. Additionally, visual data were collected in the form of drawings made by past and current student participants onto a single roll of brown paper. The total size of the roll was 90cm by 100m, of which just over 20m in length was used.



Figure 6: *The brown paper, rolled for storage*

At the beginning of every session the paper would be rolled out on a table (or floor if there was no large table), and a mixed container of pens, pencils and other drawing tools provided. It was important that at the start of every session the paper was rolled out in front of the participants from the very beginning through to the free space at the end, as this allowed them to see the full scope of the project prior to their involvement.



Figure 7: The brown paper roll before being left unattended

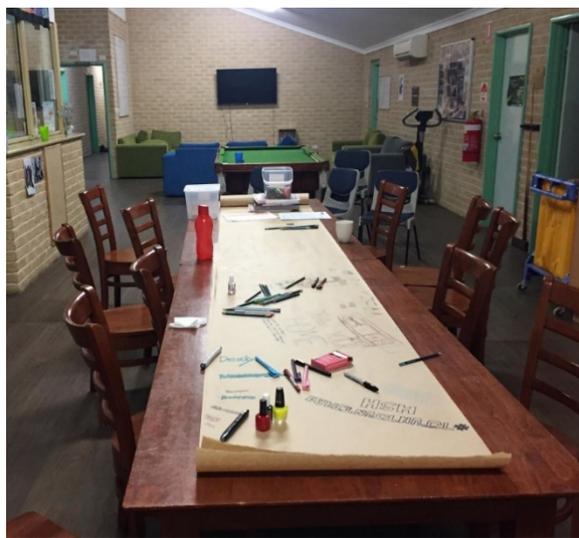


Figure 8: The brown paper roll after being left unattended with students

This would prompt discussion about the types of drawings and ideas that had been collected so far and, in turn, this served as an ice-breaker for the yarn. This tool played a critical role in the research (8.7).

3.6 Data analysis

Researchers claiming participatory approaches need to grasp the nettle of participatory data analysis.

(Nind, 2011, p. 12)

Data analysis was aligned with the previously outlined participatory and constructivist methodological considerations. The approach matched the nested action research cycles described earlier, namely that it occurred from interacting with inside and outside perspectives. It was important that the data analysis, as well as data collection, be participatory as this 'ensures that findings more accurately reflect the realities of participants' lives and that resulting actions are more likely to bring benefits

to young people and their communities' (Liebenberg, Jamal, & Ikeda, 2020, p. 2). Though it was challenging to find ways of including participants in the analysis given that there were geographic and time barriers, it was important that this occur in a genuine way. Participatory analysis was, therefore, approached in two ways, informed by qualitative methods: constant comparison analysis (Hewitt-Taylor, 2001) and thematic analysis (Braun & Clarke, 2006). The analysis was inductive, as the study sought to promote the individual views and perspectives of participants, 'not to prove a preconceived theory' (Hewitt-Taylor, 2001, p. 40). This meant that themes emerged from the data, the participant voices, instead of in relation to predetermined codes. This section of the chapter explains the considerations and procedure for data analysis in detail.

3.6.1 Constant Comparison Analysis

The first type of data analysis used was constant comparison. This is a qualitative method of analysis in which information is organised into emergent themes or codes. After the initial coding, the data were constantly revisited until it was clear that there were no new codes (Hewitt-Taylor, 2001). Constant comparison analysis occurred in this project in two ways. The first way was through the access that past and current student participants had to previous drawings through the brown paper roll. This meant that they could observe the traces of previous discussions and add or comment to either confirm, challenge, or expand an issue that had been raised. The second way that constant comparison analysis was used was by a preliminary coding of audio transcriptions by the researcher after the fourth group session. Topics and views that had been recorded by this point were gathered into a table, and this was then used as an additional prompt for discussion for the remaining recorded sessions. Notes and adjustments were added to the table based on participant suggestions so that it was constantly updated. This allowed participants to also comment on verbally described material of previous sessions (noting that identifying information such as direct quotes, names, schools etc were not shared).

Within each recorded session the data increased in richness over time, as the participants gained knowledge, capacity, and familiarity with the topic throughout the methods, resulting in a heavier weighting of confident and meaningful participation towards the end. Due to this, there is also some non-linear 'jumping' back and forth at the end of sessions as students made new connections relevant to previous stages.

3.6.2 *Thematic Analysis*

Thematic analysis is a process of searching across a data set for 'repeated patterns of meaning' (Braun & Clarke, 2006, p. 15). This was used to make sense of both visual and verbal data in the project, with adaptation to the PAR methodology. Thematic analysis was conducted with consideration that 'a constructionist framework cannot and does not seek to focus on motivation or individual psychologies,' and instead aimed to theorise 'the socio-cultural contexts, and structural conditions, that enable the individual accounts that are provided' (Braun & Clarke, 2006, p. 14).

Inductive analysis 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). This was an important way of ensuring that the findings reflected the participant voices, so, the analysis is data driven rather than directed by theory. It is acknowledged, however, that 'researchers cannot free themselves of their theoretical and epistemological commitments, and data are not coded in an epistemological vacuum' (Braun & Clarke, 2006, p. 12). The analysis style was latent, in that the search for themes went 'beyond the semantic content of the data' to examine 'the underlying ideas, assumptions, and conceptualisations' that shape the material (Braun & Clarke, 2006, p. 13). It is important to note that to some extent this occurred within the yarnning through the participants' reflections and explanation of their ideas.

Table 18 shows the translation of the six stages recommended by Braun and Clarke (2006) and the additional measures taken to ensure insider perspectives continued to be represented. These additional stages included: the participants verbal and visual reflection within each yarn; intermediate coding of data after the sixth yarn; and, after Braun and Clarke's 'Phase 4' of reviewing themes, the emergent themes were interrogated with a sample group of Aboriginal boarding school students (organised by one of the members of the Advisory Group). It should be noted that these students were not participants themselves, so this was also considered to be a form of peer scrutiny to test the credibility of the findings.

Of further note is the involvement of Advisory Group members in the data analysis in two ways. First, by discussing the emergent themes (see 'Phase 3'). Second, through the involvement of three members in the data collection as participants, meaning that their perspectives are also captured in the constant comparison approach to analysis.

Table 18: Process for thematic analysis

Purpose	Actions taken in this research
Participatory Measure A: Reflection within yarns	
<ul style="list-style-type: none"> • Constant comparison analysis within each yarn. • Participants designs as a form of analysis 	
Participatory Measure B: Preliminary coding	
<ul style="list-style-type: none"> • Intermediate coding of data after the sixth yarn. • Identify emerging themes for participant reflection. 	
Braun & Clarke Phase 1: Familiarising yourself with your data	
Become familiar with the data set (p. 18).	<ul style="list-style-type: none"> • Printed transcripts and re-listened to recordings to check for accuracy • Familiarisation with the drawings by looking, photographing, tracing.
Braun & Clarke Phase 2: Generating initial codes	
Generate initial codes from data (p. 19).	<ul style="list-style-type: none"> • Re-read transcripts and generated initial codes by hand • Visualised and tested relationships between codes
Braun & Clarke Phase 3: Searching for themes	
Initial codes organised into larger themes that 'cohere together meaningfully' around a 'central idea' (p. 20; 24).	<ul style="list-style-type: none"> • Grouped codes into themes • Preliminary thematic map • Check point for feedback from Advisory Group
Braun & Clarke Phase 4: Reviewing themes	
Review themes for validity (p. 21). This process may involve some recoding.	<ul style="list-style-type: none"> • Reflected on themes and codes as a whole • Internal validity: primary researcher re-coded 10% of transcripts, external validity: outside researcher re-coded 10% of the transcripts
Participatory Measure C: Reviewing themes with sample of current students	
<ul style="list-style-type: none"> • Informal discussion of themes with sample group of current students, no new themes emerged. 	
Braun & Clarke Phase 5: Defining and naming themes	
Themes given names, structure hierarchy, without ignoring 'tensions and inconsistencies'(p. 20).	<ul style="list-style-type: none"> • Naming and further definition of complex themes
Braun & Clarke Phase 6: Producing the report	
The research report should 'tell the complicated story of your data in a way which convinces the reader of the merit and validity of your analysis' (p. 23).	<ul style="list-style-type: none"> • Present themes with participant voices • Quotes organised by groups, long verbatim quotes intact & maintaining connectedness between themes

The preliminary codes created through the constant comparison analysis did not directly factor into the final thematic analysis by the researcher. This is because those codes related only to the first six yarns (including the pilot studies) and were, therefore, not representative of all participants. It was considered that those themes were absorbed into and filtered through the subsequent participants as a continuation of the constant comparison approach. The written list of preliminary themes were adjusted in response to participant suggestions throughout the remaining sessions in an iterative way so that each was in response to the most recent information. The themes were also represented visually on the brown paper roll so that participants would see and could add to them.

3.7 Ensuring trustworthiness in the research

Given the potentially messy nature of qualitative research (Bryman, 2016, p. 13), it was important that this project employ methodological principles that promote trustworthiness. Specifically, PAR has been criticised as being a 'soft' method, as its purpose is to focus on the voice of 'everyday experiences' (Macdonald, 2012, p. 41). Unlike many qualitative methodologies, the degree of trustworthiness for PAR is typically measured by the level to which the participants involved agree with the findings. As Kemmis, McTaggart, and Nixon (2014) put it:

A crucial feature of the work of critical participatory action research is that it must be considered legitimate and valid by participants themselves—not on their behalf by their delegates or representatives, or on the advice or the judgement of experts, or the judgement or instructions of their supervisors or managers, for example.

(Kemmis, McTaggart, & Nixon, 2014, p. 11)

As such, the most important indicator of trustworthiness in this research was the degree to which the themes resonated with current and past Aboriginal boarding school students. The experiences of this group are not homogenous, so it was also important that the presentation of themes accounted for the broad and multiple perspectives that each topic may contain. This was continually tested in multiple ways

throughout the project. The first, and arguably most important way to ensure this validity and legitimacy was through the creation of a 'public sphere' for participants, or as it has been described in this chapter, the 'communicative space'. This was created through the continuous roll of brown paper.

As the purpose of action research is to impact future practice, it was also important that the project outcomes be 'trustworthy' to external readers. Lincoln and Guba (1985) understand trustworthiness as a way for researchers to 'persuade his or her audiences (including self) that the findings of an inquiry are worth paying attention to' (p. 290). This has also been understood in terms of the 'goodness' or 'rigour' of research (Smith, 1993; Denzin & Lincoln, 2000a; Arminio & Hultgren, 2002; Tobin & Begley, 2004). As has been discussed throughout this chapter, the research design for this project was intentionally open-ended and reflexive, meaning that it did not always progress in a linear and neat way. Due to this, it was considered especially important that principles were put into place to ensure that the research findings would be trustworthy, noting that the virtues of these findings are still understood within a qualitative and, therefore, subjective way of thinking. In line with the established literature for ensuring trustworthiness in qualitative research, four main principles were adhered to: 'credibility', 'transferability', 'dependability', and 'confirmability' (Lincoln & Guba, 1985; Tobin & Begley, 2004; Schwandt, 2007; Bryman, 2016; Nowell et al., 2017). These principles are explained here in terms of how they have been translated to the present study, or where they have been adapted to better suit the situation.

Firstly, credibility is thought to be the level of 'fit' between the views of participants and the researcher's representation of them (Lincoln & Guba, 1985). Credibility is the recognisability of the phenomenon represented to those who have experienced it (Lincoln & Guba, 1985; Nowell et al., 2017). This can be promoted in research through several measures; the early development of familiarity with relevant people and organisations, the use of well-established research methods, the triangulation of data during collection, the use of random sampling, prolonged engagement with the research methods, and exposure of the research to peer scrutiny (Lincoln & Guba, 1985; Nowell et al., 2017). The ways that these measures were adopted in the current study are detailed below in Table 19.

Table 19: Actions to ensure credibility

Actions taken in this project to promote credibility	
(Lincoln & Guba, 1985; Nowell et al., 2017)	
Early development of familiarity with culture and organisations	<p>Informal networking</p> <p>Attending relevant events</p> <p>Formation of an advisory group</p>
Using established research methods	<p>Consideration of many established methods</p> <p>Adaptation of established methods</p> <p>(explained further in 3.3 <i>Developing the method</i>)</p>
Triangulation of data	<p>Recruitment of three types of participants overall</p> <p>(Staff, Past Student, Current student)</p> <p>Multiple data collection sites</p> <p>Multiple participants from each site</p> <p>Multiple methods (Yarning and drawing)</p>
Random sampling	<p>Not used – in favour of snowball recruitment</p> <p>(reasoning explained in 3.5.1 <i>Recruitment</i>)</p>
Prolonged engagement	<p>Data collection spanned over a year</p> <p>Multiple visits to some research sites</p>
Peer scrutiny	<p>From supervisors</p> <p>From cultural advisor</p> <p>From members of the Advisory Group</p> <p>From participants within the research</p> <p>Through the peer review process of one published journal article, two written conference papers, and verbal feedback during two other conference presentations.</p> <p>Through informal networking and conversations with academics, designers, students, boarding school leaders, boarding school staff, and community members.</p>

Of note in the table above are the first and last concepts; ‘Early development of familiarity with culture and organisations’ and ‘Peer scrutiny’, which were both addressed in part through interaction with the project’s Advisory Group. These principles were important in this project, as the researcher was not an Aboriginal person and had never personally attended a boarding school. Informal networking in the early stages of the research, which included the attendance at professional and social events, contact with authors of relevant research, contact with friends who had attended boarding school, contact with relevant local organisations and the formation of the Advisory Group itself was a critical feature. Through this, the researcher was able to gain a sense of extensive and collective firsthand boarding school and research experiences, with various modes of access critical feedback and input on the topic through the process. The Advisory Group played an important role in this, particularly in the early stages of the project development.

The second principle of trustworthiness is transferability. This refers to the level to which findings are applicable to other contexts. In any qualitative research, findings are typically ‘specific to a small number of particular environments and individuals’, meaning that it is ‘impossible to demonstrate that the findings and conclusions are applicable to other situations and populations’ (Shenton, 2004, p. 69). Due to this, ‘thick’ descriptions must be provided of the project context so that ‘other researchers can determine transferability to their sites’ (Tobin & Begley, 2004).

Table 20: Actions to ensure transferability

Actions taken in this project to promote transferability	
(Lincoln & Guba, 1985; Nowell et al., 2017; Shenton, 2004, p. 69)	
‘Thick’ descriptions of the data	As described in 3.6, as much as possible the data has been kept contextually intact in the way it is represented in the findings chapters.

<p>Full description of all the contextual factors, including:</p> <ul style="list-style-type: none"> • The number of organisations taking part in the study and where they are based; • any restrictions in the type of people who contributed data; • the number of participants involved in the fieldwork; • the data collection methods that were employed; • the number and length of the data collection sessions; • the time period over which the data were collected. 	<p>This information is provided in 3.5</p> <ul style="list-style-type: none"> • The number of boarding school sites taking part in the research and where they were based; • the criteria for participant recruitment; • the number of participants involved in the research; • the data collection methods that were employed; • the number of data collection sessions and how many participants in each; • the time period over which the data were collected.
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The third principle of trustworthiness employed was that of ‘dependability’. Dependability is about ensuring that ‘others can examine the inquirer’s documentation of data, methods, decisions and end product’, for example through an audit (Tobin & Begley, 2004, p. 392). Self-critical reflexivity by researchers is a central characteristic of a strong audit trail, which should include documentation of ‘internal and external dialogue’ (Tobin & Begley, 2004, p. 392). Table 21 describes the auditable markers of dependability in this research.

Table 21: Actions to ensure dependability

<p style="text-align: center;">Actions taken in this project to promote ‘Dependability’</p> <p style="text-align: center;">(Lincoln & Guba, 1985; Nowell et al., 2017; Tobin & Begley, 2004, p. 392)</p>	
<p>Markers of logical, traceable, clearly documented process</p>	<p>Auditable markers in compliance with approval from Human Research Ethics Committee (HREC), are attached in the appendix:</p> <ul style="list-style-type: none"> • A- Resource for planners • B- Approval from Curtin HREC • C- Amendment to Approval • D- Research Poster

	<ul style="list-style-type: none"> • E- Participant information • F- Participant Consent • G- Contact details • H- Invitation for Advisory group members • I- Invitation for Cultural Advisor • J- Letter to school principals • K- Consent from school principals • L- Data Management Plan • M- 2-page example transcript <p>Auditable material not included in the appendix (stored in compliance with the data management plan):</p> <ul style="list-style-type: none"> • Photography of raw data (brown paper roll) • Audio files of yarning recordings • Full transcripts of yarning • Physical brown paper roll • Email communication with Advisory Group, school representatives, and supervisors. <p>Documentation of travel approval for fieldwork, including compliant paperwork:</p> <ul style="list-style-type: none"> • Curtin Emergency Notification Plan • Risk Matrix for travel
Documented reflexivity and critical reflection	Through engagement with an Advisory Group and the use of PAR as a methodology.

As summarised above, dependability was promoted in the research through adherence to recommended processes, which is evidenced by auditable written documentation. The reflexivity and critical reflection inherent to PAR is also documented in this way.

The fourth principle of trustworthiness for qualitative research is confirmability. This is about showing how the findings that are reached and demonstrated are derived from the data. This is typically done by providing the reasons behind choices in the design of the study (Koch, 1994). The purpose of this is to ‘ensure as far as possible that the work’s findings are the result of the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher’ (Shenton, 2004, p. 72). In other words, the need is to show that interpretations of the data were not ‘figments of the inquirer’s imagination’ (Tobin & Begley, 2004, p. 392). As shown in Table 22, this is evident in the current study through the detailed descriptions of methodological choices provided in this chapter, and the contextualisation of findings with the visual and verbatim quotes of participants.

Table 22: Actions to ensure confirmability

Translation of ‘confirmability’ principles to this project	
(Lincoln & Guba, 1985; Nowell et al., 2017;)	
Provide reasons behind choices in the design of the study	Detailed description of the choices involved in the study design provided in this chapter.
Conclusions are clearly derived from the data	Findings have been presented with examples of quotes from participants and photographs of their drawings

Although it is not explicitly described within the four principles outlined above, another way of promoting trustworthiness in this research was through the methods of yarning and drawing in the data collection. The immediacy of drawing as a communication tool alongside yarning helped to reduce the possibility for misinterpretation by the researcher. Literat (2013) has described how visual narratives are highly subjective and, therefore, vulnerable to over-interpretation, which is particularly problematic ‘when the researcher belongs to a culture other than the one they are researching’, as was the case here (p. 93). The decoding of visual imagery by students through simultaneous storytelling was critical in minimising this problem. Thoughts and experiences were translated into spatial attributes and explained as the drawing was happening, so the researcher did not need to make (potentially inaccurate) translations later.

3.8 Ethical issues

The study design was informed by the *Guidelines for Ethical Research in Australian Indigenous Studies* (AITSIS, 2012). This was used as an ethical guide across all aspects of the research. This resource makes clear that due to the 'inherent right' of Aboriginal and Torres Strait Islander peoples to self-determination, 'it is essential that Indigenous people are full participants in research projects that concern them' (AITSIS, 2012, p. 3). Extending this, research must be founded on a 'process of meaningful engagement and reciprocity', while recognizing that there is 'no sharp distinction' between researchers and Indigenous people, who are also researchers and equal partners in the engagement (AITSIS, 2012, p. 3). In response to this, an 'Advisory Group' was formed prior to the researcher gaining PhD candidacy.

The Advisory Group included five women:

1. Past boarder known personally to the researcher through living together in our first year of university (Aboriginal woman, WA, participated as a past student);
2. Coordinator of a support services program for Aboriginal and Torres Strait Islander students in Western Australian independent boarding schools, recommend by 1 (Aboriginal woman, WA, participated as a staff member);
3. Director of a tertiary accommodation program for Aboriginal and Torres Strait Islander students with a background in boarding, recommended by 1 (non-Aboriginal woman, WA, participated as a staff member);
4. Past principal of a boarding school and academic focussing on the subject of Indigenous boarding, contacted due to expertise (Aboriginal woman, not in WA, did not participate);
5. Western Australian academic focussing on human rights, contacted due to expertise (Aboriginal woman, in WA, did not participate).

The purpose of this group was to prioritize the perspectives of Aboriginal individuals and communities to which this project related through a 'continuous two-way process' of consultation (AITSIS, 2012, p.11). It should be noted that each member of the group brought a different perspective and role to the project. As time and knowledge was given by the advisors without pay, the researcher was mindful that the type of work and advice being asked for was meaningful and appropriate to the project timeline.

For example, academic advice was needed to a greater extent during the formative stages of the research, while assistance with participant recruitment and engagement was needed more during the data collection phase. This means that some advisors contributed in bigger or smaller ways at different points throughout the research.

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 Advisor's own experiences, then recommending her granddaughter to participate in testing the method further (as detailed in 3.3.4).

The researcher identified 'appropriate individuals and communities to consult' throughout the duration of the project, particularly those who 'have made an important contribution in relation to the research topic' as well as relevant Indigenous 'regional, local and community' organisations that can help the researcher 'observe appropriate community values, norms and protocols' (AITSIS, 2012, p.9). Extensive informal conversations were had with Aboriginal and non-Aboriginal stakeholders within the Western Australian boarding school community during the development of the research. This included staff and Aboriginal Liaison Officers in several schools, past boarders, family of past boarders, researchers, and staff within local Aboriginal organisations, and academics who have led relevant recent research. This informal but essential early networking deepened the researcher's understanding of various dimensions of the project and, in particular, the limitations of western research methodologies. This was also an essential way of navigating boarding school communities, of which the researcher was not part, and contributed to the development of appropriate and effective research methods.

Ethics approval was obtained from the Curtin University Human Research Ethics Committee (HREC), with support for the research also provided by the Future Footprints program within the Association of Independent Schools Western Australia (AISWA). All schools represented in this research were independent, and no Department of Education sites, staff or students were included the study. As such, an ethics approval for external researchers with the Department of Education was not needed. All participants were at least sixteen years of age, which in combination with consent from a guardian 'in loci' allowed them to consent to participate in the research

on their own behalf. In all cases, information written in plain language was also provided so that it could be sent by the school to parents of boarders, providing an opportunity for questions about the project or for consent to be withdrawn.

As outlined by the *Australian National Statement of Ethical Conduct in Research Involving Humans*, all digital data collected in association with this research will be stored securely on the university 'R' drive, physical data such as drawings will be kept in a locked cabinet. All data will be kept for 7 years from the date that the youngest student participant turns 18.

3.9 Conclusion

In summary, Participatory Action Research (PAR) was used as a guiding methodology for this project, in which yarning around and drawing on a large roll of brown paper formed the 'communicative space' for participant discourse. These methodological choices were made in order to prioritise the perspectives of the people that the research question concerned (Aboriginal young people), to be responsive to their voices, to impact practice outside of academia, and to acknowledge the role of the researcher as an active and non-objective contributor in the process. The research objectives were responded to by the methodological choices in the following ways:

- (1) *To examine the concept of 'belonging' as a tool for evaluating the design of student housing:*

The research methodology needed to be designed in such a way that a sense of belonging was not only a reference point, but a framework that could be reflected upon and applied in future spatial research. Sense of belonging was understood as a subjective concept that is not static, therefore, its effectiveness as an evaluation tool was determined by the extent to which participants could adapt the concept to their own lived experience.

- (2) *to identify elements of the interior design of Western Australian boarding schools which affect Aboriginal young people's sense of belonging,*

The project needed to be designed in such a way that participants could identify these elements themselves, in relation to their understanding of a sense of belonging.

(3) and to propose a strategy for the interior design of future boarding schools that may encourage an increased sense of belonging for Aboriginal students.

The data collection needed to encourage actionable ideas that could be translated to future practice.

The following four chapters will present findings from the data collection in a narrative style, using examples of the participants' drawings and verbatim quotes to contextualise each theme.

Chapter 4. Place Identity

*We simply do not know who we are, until we know
where we are.*

(Weisman, 1992, p. 9)

4.1 Introduction

Place identity was an important factor in the production of a sense of belonging for participants in this research. This is the first of four findings chapters in this thesis, with each one working in a different scale or dimension of the experience of belonging in boarding school for Aboriginal students, and the potential role this has for interior design. The overall journey of the next four chapters starts at home, with presentation of how participants' defined sense of belonging. It then moves through the boarding school experience through the eyes of participants; describing their impressions of boarding school architecture, the social dynamics that have to be navigated within it, the everyday interior designing undertaken by students that give them a voice, and finally the issues that arise from living '*at school 24/7*' (Past C 01). The narrative approach of this order means that the chapters are designed to be read chronologically and not in isolation of one another.

One of the key considerations described in Chapter 3 was that the research should prioritise the voices of participants. Therefore, the proceeding findings are described in a narrative style, illustrated by verbatim quotes from the yarning. This aligns with Hallett and colleagues' (2017) suggestion that 'stories emerge and are shaped within dialogues', therefore, emphasis should be on 'the speaker's voice remaining intact to resonate more fully within the cultural context from which it emerges' (Hallett, Held, McCormick, Simonds, Real Bird, Martin et al., 2017, p. 12). Because of this, some participant quotes may seem long and winding, and it should be noted that this was an intentional choice in the writing. In these cases, the communication style of the speaker was put before the need for succinctness. It should also be noted that although the themes emerged from the data through inductive analysis, they are contextualised with theoretical discussion as they are presented. This includes reference to the literature review in Chapter 2, or in some cases, the introduction of new theory. This is in line with the way that literature can be drawn on iteratively in

Action Research, explained by Crouch and Pearce (2012) as 'comparing and contrasting new data and meanings with existing data, ideas, meanings and theories in the field' and 'making meaning of data by relating new data to what is already known' (p. 46). In this way, the presentation of findings continues with the dual rhythm of alternating between etic (outside) and emic (inside) perspectives, as was the case in the data collection.

Starting here with '*Place Identity*', themes that emerged from the yarning about the way that participants characterised their boarding schools are presented. As proposed by authors Peng, Striker and Wu (2020), 'everybody in the world belongs somewhere' (p. 3). To recap the literature review in Chapter 2, a sense of belonging can be connected to the formation of place identities, the theory of which has two broad categories. The first is 'people's place identity', which is the way that people's identities are formed by places. This can be thought of in terms of how Aboriginal boarders may construct their sense of personal identity in relation to their hometowns. The second category is the 'identity of a place', which is the way that a place is perceived in relation to other places. In other words, the perceived 'personality' of the place (Peng, Striker & Wu, 2020, p. 1, 14). In the case of this research, this refers to how Aboriginal students perceived the personality of boarding schools. Both dimensions of place identity theory are relevant to the topic at hand and are addressed in this chapter. To imagine this from the perspective of students, the themes here respond to questions such as; 'what is this place?', 'what do I know about it?', 'what does it remind me of?', 'how does it make me feel?', 'is it a good place for me to be?'.

This chapter is divided into four main themes and each contain a number of sub-themes. The first theme, '*Home*', describes participant views on what a sense of belonging is in their experience. On this topic, there was a tension as to whether boarding schools should imitate home, and what the role of boarding schools are, or should be, in terms of education, teaching culture, and dealing with homesickness. The next sub theme, '*First Impressions*', describes how boarding school compared with participants idea of home, and the challenges associated with entering an unfamiliar environment. This is followed by sub theme '*Intangible associations*', which deals with the spiritual, cultural, and intergenerational associations with boarding school sites which were often not based on facts or first-hand experience, but could still affect sense of belonging. Sub theme '*Institutional character*' captures the overall institutional feeling commonly attributed to boarding school architecture, with

reference to 'bland' aesthetics, structured rules and regulations implied by the space, the feeling of being in a prison or hospital, and the issue of students feeling constantly watched and judged.

4.2 Home

The participants' own definition of a sense of belonging was the key reference point within each yarn, so it is important to understand this first as context for the proceeding themes. In this research, the idea of 'home' was constructed as being more than just the place where you live, but rather a place that is underpinned by the feeling of belonging. As such, this theme describes the participants' construction of what a sense of belonging means in relation to different places. This is described in terms of two sub-themes. Firstly, and in the words of one participant; '*Home is home*' and cannot be replaced. Secondly, that the homesickness typical in boarding school for any student can have a deeper meaning for Aboriginal students, which was described as feeling '*Country sick*'.

4.2.1 Home is home

Participants described the identities of their homes as distinct from other places. The places participants came from were an important reference point in their descriptions of a sense of belonging, and whether it was felt at boarding school:

I suppose it's just, I know I've talked to my friends and they agree and stuff. It all relates back to having a common sense of home. Having something in common with the other people, like, "Oh yeah, that's the same as my home".

Past A 01

However, defining exactly what makes somewhere 'home' was more complicated. This intangibility was a recurring point of discussion in many sessions. The struggle of dissecting what makes a sense of home was summarised well by a participant who simply said that '*home is home*' (Past C 01), suggesting that there was no other way of explaining it. Defining home was also complicated for students who had

experienced high levels of mobility and subsequently did not consider a specific location or building to be their home:

The problem is...my family always moved around heaps...I've moved around so much that like...no house is like a home to me really anymore...I don't know, it's weird to explain.

Past B 01

While a concise definition of home was difficult to pinpoint, the sense of it was evoked in other ways. For example, this description by three past students of arriving home to Broome by plane at the end of the school term:

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, 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 sitting 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.*

Past C 01

The intangible qualities of home were also described through feeling their absence. A student described a difference between the casual use of the word 'home' to describe the boarding house compared with the feeling of actually being home. In this case, the student described school holidays with other Aboriginal and Torres Strait Islander boarders as being 'home', because of their familiar physical and social characteristics:

*...when I say I'm going back to boarding, when I'm like
"I can't wait to go back to boarding", I would never call
boarding home...even though it is like my home away
from home, I would never call it home. When I come*

here on these camps, I would call these homes home because I know all these people in the camp. We're living in a house, it's pretty standard, we eat breakfast in the morning together, and the connection we all have with each other...

Current B 02

This is interesting, as the camps (which were run in rented houses outside of the city through Airbnb) were always in a different location and with different students, yet the student suggests that the social qualities of home could be replicated each time and in each space. However, the implication seemed to be that this was not being done successfully at the student's boarding school. The idea that boarding houses might be referred to as home but thought of in another way was further discussed by two participants in another yarn:

Speaker 1: Like when you're here (boarding school), it's like you're walking around in someone else's house, and like living in their house. It doesn't feel like home.

Speaker 2: I definitely get that, but I feel like because you live here for five years or however long you're here, it's still your home. It's your second home. I'd be like "I can't wait to go home", back at school. I'd be at someone's and "Oh, time to go home."

Current D 01

These participants suggested that there is a distinction between habitual use of the word 'home' as being where you go to sleep on a daily basis, and the deeper sense of home and connectedness that they associated with feeling that they belong. Students identified that the difference between these two versions is social, illustrated through their sense of connectedness with the other Aboriginal students:

So it's really the other girls making that girl feel at home, even though they're not home.

... But I think it's the black kids that get me into it. You know when you've got those people that are like you, and you don't feel like that. That's also belonging.

The ability for a greater sense of home to contribute to belonging was evident, but it was also clear that this cannot be achieved only through routine and superficial use of the word, or even be based on a singular understanding of what a home is. In making this distinction, important boundaries are suggested regarding whether boarding school can and should mimic home in order to feel more familiar. In extension of the uncompromising position that *'home is home'*, it reasons that the boarding school is not home and never could be, meaning the two place identities are already distinct. When the question of whether boarding school could incorporate more familiar elements from home, one student expressed hesitation. He proposed that this could be both distracting and lead to further homesickness. His concise solution was to *'make it like home, but different'* (Current D 01). Overall, the participant voices on this topic suggested that even though they missed home, the boarding school should have its own unique and separate place identity.

4.2.2 Country sick

The student participants of this research described how homesickness affected them while at boarding school. However, this was put into terms that were about more than just missing home, it was also about their connection with their Country. Homesickness is a normal and relatively well understood aspect of attending boarding school for any student, and has been linked to sense of belonging in the existing literature:

For many young people, homesickness went to the heart of belonging. Their accounts embody nostalgia in the literal sense of the Latin word: a 'sickness' for what it is to 'be us'.

(O'Bryan, 2016, p. 159)

In line with this, one staff participant described how homesickness was an expected emotion that all boarding school residents must navigate:

Let's be honest, every girl who comes in here at some point in time is going to be homesick.

Staff F 01

While homesickness is indeed a common phenomenon at boarding school, students of this research reported a perception that this can manifest differently for Aboriginal students, which can be poorly understood by staff. When describing homesickness, this often became a simultaneous discussion of their connection to Country:

I just miss the Country, you know? If you're homesick and you're Aboriginal, you're country sick too.

Past C 01

In this way, students described their cultural dislocation as a form of homesickness that is additional to their geographic distance between home and family, which could be exacerbated by a lack of cultural support. One past student explained 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). The students laughed about this misconception, but also reflected seriously on the lack of cultural knowledge available to them in their transition from home to boarding school. They explained that even though the local Aboriginal culture was different to their own, this could still help connect them to their sense of Aboriginality:

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

Many schools were reported to have organised a Welcome to Country ceremony at the beginning of the school year, and this was appreciated by student participants:

Because that's what we have to do anyway when we come to different places. Be welcomed. And to learn.

Past C 01

However, it was suggested that the school's involvement with Aboriginal culture could be expanded into the day-to-day running of the boarding school, including its physical design:

I think there can be more cultural awareness in a boarding house, in like that there could be names of the corridors, could be Nyoongar names or little things like that.

Past C 01

...whatever land you're on is the one that'll be recognized first. So for example, we are on Noongar land, so that has to be recognized first. So obviously your welcome to Country at the first door is an acknowledgement of Country for Noongar people, this sort of stuff. So that always comes first...it's informed by our land...it's our land then that's making that space.

Staff B 01

I feel definitely incorporating just Indigenous design or anything that has to do with Indigenous culture into the boarding house would make it so much better 'cause we literally have nothing here. It's showing that they support or acknowledge Indigenous culture.

Current D 01

These comments suggest that increased consideration of 'whole Aboriginality' within the design of the architecture could help Aboriginal students to perceive the identity of the place more positively in relation to their own values.

As discussed in 2.4.3, Aboriginal students can feel a deep 'pain and heartbreak of being away from home and missing family', while at boarding school (Rogers, 2018, p. 208). This homesickness has been described as eventually merging with 'the more enduring question of where they felt they belonged' (O'Bryan, 2016, p. 151). The themes in the current study suggest that sense of belonging while at boarding school was connected to a strong sense of belonging to home, and that it would perhaps be difficult to achieve one without the other. Many participants' sense of home, including their connection with Country, was an important reference point in how they related to new spaces.

4.3 First impressions

The built environment of boarding schools was described as different to what many Aboriginal residents were used to. In line with the existing literature that connects sense of belonging with familiarity to an environment, degree of familiarity was found to be a major factor in students' experiences of belonging within this research. This was sometimes characterised as a sense of shock in reaction to the size and style of buildings, the surrounding suburbs, the school culture, and the climate.

The ways that participants described how the built environment might (albeit unintentionally) give an Aboriginal student the message that they are not truly welcome are explained next. First through the sub-theme of '*Sense of shock*', which describes the participants initial reactions to arriving at boarding school. Then, through the symbolic associations of elements within the built environment, the sub-theme of which is named after one participants' summary that '*It's very English*'.

4.3.1 Un-Familiarity

As established in the literature review, there is a relationship between familiarity with places and belonging to them; 'sense of belonging is essentially related with familiarity to an environment', which can be established and measured through spatial knowledge (Alawadhi, Chandrasekera & Yang, 2014, p. 341). Spatial knowledge is understood here in two ways, as an indicator of belonging, and as a facilitator of

belonging through design. This connection was also made by participants of this study:

...feeling familiar with the place, whether that's familiar sounds or faces or something like that, that reminds you of maybe home.

Past B 01

However, it was identified that there were elements of the built environment at boarding school which were unfamiliar and in contrast to home for Aboriginal students. As described by this participant, the environments can be very different:

Especially the transition from going from small community to straight-up boarding school and it's like, "whoa"...this school has an elevator in it.

Past C 01

As indicated in this quote, size and density of the physical environment can be unfamiliar. Internal layouts of the buildings at the participants' schools were described as difficult to navigate, which could lead to issues of disorientation at times. For example, a current student participant shared that *'when I first came I didn't know where the bathroom was!'* (Current B 03). The potential impact of density was described by a staff member with experience in supporting Aboriginal students in secondary and tertiary accommodation:

We have students who come here and don't like it. Some of them come here and say "I hated the experience. It's so out of my comfort zone to be here in this 400-bed facility.

Staff C 01

For the residents of boarding schools in a metropolitan area, the density of the accommodation itself is also partnered with that of the surrounding suburb, resulting in an additional lack of familiar open space beyond the interior environment:

So being here in downtown [suburb name] is a very different physical environment for them as well... So there's a lot who are probably yearning for the same physical space...the girls get a bit of cabin fever, 'cause that's what they miss... more than anything the girls here, and it's all of them, miss the open spaces. Somewhere to just get away.

Staff F 01

While this is often offset by proximity to outdoor amenity such as a river-bank, beach, park, or oval, the effect of this environment is not purely physical (i.e. access to open or natural space), but also symbolic. The buildings surrounding the schools were described not only by their size and aesthetic, but also in their representation of wealth, lifestyle and worldview.

So when they come down, even at the end of last term when they came to orientation, and you drive through the suburbs, and let's be honest, for a lot of the families it is like "Wow. My God, where are we? This is just ridiculous, these houses are massive."

Staff F 01

This could be a consideration in the master planning of school locations and overall layout. Smaller and more modest buildings could reduce this initial contrast.

Other ways of increasing a feeling of familiarity within the buildings were identified. The particular qualities that make something familiar varied depending on the individual students' home environment, but it was commonly identified that background noise such as people talking, the sound of TV, or being able to hear music can increase a familiar feeling:

...having life or being lively and those familiar sounds that you might hear, like the TV or music.

Past B 01

It is also important to note that the types of sounds listed did not require focus or a response from students, but rather created a background atmosphere that they could be aware of without needing to directly engage. This is different from sounds such as loudspeaker announcements, school alarms, and loud nearby conversations, which are disruptive and require a response from the student. The high level of supervision and social activity within boarding schools could suggest that passive sounds requiring no action are relatively rare. Interior spaces could be designed to encourage familiar sounds and reduce harsh or demanding noises. For example, operable windows to gardens or provision of flexible social spaces with high acoustic absorbency.

4.3.2 Feeling welcome

Participants indicated that feeling welcome is an important component of sense of belonging in a place and described their impression that the school environment did not always do this for them in a meaningful way. For example, the following student expressed a frustration in the difference in tone between being allowed to be at the school compared with feeling welcomed and included:

I feel like for a boarding house not... or wherever an environment you're living in...I just feel like it's specifically 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?

Current D 01

This student articulated the need for boarding schools to actively celebrate Aboriginal culture, or otherwise risk sending the message that students are not actually welcome to be who they are. The question posed by this student suggests that being formally

accepted to attend the school is a superficial gesture if the students' identity and culture are then not actively supported and celebrated. A staff member described the use of symbols in making students feel welcome:

I have this big thing, too, that when they come in they've gotta see themselves reflected somewhere...At least in all these student rooms here, we've put a photocopy of the flag and some Aboriginal posters. We encourage students to come in and instantly put all their family photos up. I think there has to be the physical reflection of themselves somewhere.

Staff C 01

A student echoed the idea that small symbolic details can contribute to a greater sense of inclusion or exclusion:

Even just the little things that show they care and where you don't feel excluded and marginalized.

Current D 01

Displaying the Aboriginal flag was identified as a simple and significant symbolic act for increasing sense of belonging. For example, a student whose mother had also attended the same school described the intergenerational struggle to have the flag displayed:

Mum said that she was first ... I think she was the first Indigenous student at this school... They didn't really do much to do with indigenous culture and stuff. Since she was here she's been wanting the Aboriginal flag up, but they said no. We only got it up last year? Yeah. And the past Indigenous students have been fighting for it to be up, and it was only last year that ... And then they finally approved.... I think the reason why not many Indigenous students come here is because the

flags weren't up and they don't really do anything to do with ...they only do little things to do with indigenous culture"... Most students or families who are into all that cultural stuff, they find it hard.

Current E 01

Another staff member described the symbolic power of this:

I always say the easiest first starting point is stick an Aboriginal flag out the front. That's the starting point of it.

Staff B 01

This is a powerful gesture, but also an easy one to achieve. Flying the Aboriginal flag is a first step towards creating a welcoming environment, however, it should not be the only one - as noted in the existing literature, 'a flag 'thumb-tacked to the wall' did not send the same message of sovereign right and legitimate belonging within the community as a flag displayed pursuant to official protocol' (O'Bryan, 2016, p. 204).

The ability for symbolic material to create a welcoming environment was also evident through students' desire for Aboriginal artwork to be displayed:

When I see Aboriginal art, it just makes me feel so good.

Past C 01

Some Indigenous artwork would be really nice.

Current D 01

This idea was extended to other types of symbolic material displayed within the boarding school, which could include plants. A staff member described the colonial associations imbedded within the gardens of many boarding schools:

It's not that homely feel. It's amazing the amount of schools you go to that still have those lovely English roses. In the gardens! I also pick them and put them in the classroom as well, but outside in the gardens. Live roses. So again, it's that whole outside-...it's very English.

Staff B 01

Additionally, some students explained that school marketing and official posters had led to a sense of exclusion by failing to represent the diversity of the student cohort:

This is gonna sound weird, but you know that sign or poster in the front of school, you'd think there'd be like another culture within the picture?...You'd think there'd be another culture like...different colours...and in every photo they take of the school. It's just...no one of Chinese background. No one is whatever background you know? Not even Indigenous but its other...the thing I realized, not even just for us. Like you said, other international girls. Also, girls who aren't Australian I guess.

Current D 01

This example also reflects a common sensibility by the student participants in this research to the feelings and needs of their peers, both Aboriginal and non-Aboriginal. Some participants explained that they identified to some extent with Chinese exchange students within their boarding house, as they had also experienced a culture shock and were going through many of the same challenges in adapting to the new environment.

One past student participant gave an example of space in which she felt there was a strong sense of implied inclusion. This was a meeting place for an Aboriginal organisation she had been a part of after finishing high school, it communicated to students that they were welcome, and that they belonged. First, she explained the support and opportunities that made her feel a sense of belonging there:

I used to feel that same comfortable feeling that I'd feel when I was home... It was the people that made you feel so ...it was that they were so actively inclusive. You didn't just belong there, but they wanted you there, and they wanted to know more about you, and they were genuinely invested in you as people, and were trying to push you to go further and do more, and how can you get involved in this or that, and this or that? Like, "Here are more opportunities."

Past C 01

Then, how this was also reinforced through the design of the physical environment:

The buildings were always like those old black offices, but decked out as if kids had moved in. Like skateboards on the walls. There weren't chairs. If you went in, sit down...there was a couch, or you'd sit down on bean bags. And we'd go there and you'd sit around...And you'd just sit there and someone would bring beers out...and the fairy lights would be there. It was just a really good vibes atmosphere. I think it was because there weren't any old people...It was like young people running it for young people...that familiarity.

Past C 01

Here, the student made clear that the 'good vibes atmosphere' was not just because of the furniture and décor choices, rather it was from knowing that the choices were made by people that she identified with, namely, other young Aboriginal people. As she identified with who had created the space, this created a place identity that she also felt included in. In this way, interior design can imply the presence of familiar people, and by extension be embedded with a sense of their endorsement. Because of the sense of identification with the other young people, this make the place feel more familiar and welcoming on a personal level. This example illustrates that it is

important to have a sense of who makes the design decisions and has the control in a setting when students determine if they feel a sense of belonging to it, an idea that will be expanded further in 6.3.

4.4 Intangible associations

The place identity of boarding schools was also impacted by intangible associations that students had with the architecture and site. This included concern for the colonial and pre-colonial history of the land on which the buildings were placed, rumoured (or in some cases lived) experiences with bad spirits that could not be addressed by staff and meant that some rooms were considered 'haunted', and the perceived similarity between the schools and the architecture of missions. The style of boarding school architecture was also compared with that of institutions such as a prison or hospital. This feeling was attributed to the high degree of structure and regulation in the residential spaces, the feeling of being constantly watched, and the overall blandness of the interior decoration. In the eyes of the participants, it appears that the current place identity of boarding schools can be a barrier to Aboriginal students feeling a sense of belonging. Intangible associations with boarding school architecture are presented here in the order of '*With the site*', '*With spirits*', '*With family history*'.

4.4.1 With the site

Associations with the boarding school site were significant in students' descriptions of feeling a sense of belonging to that place or not. There was a common struggle to articulate specific events or circumstances that explain the associations, however, there was an undeniable sense of unease amongst some students as to the unknown (and perhaps negative) history of the boarding school site. When one student was asked '*what is the most important thing that an architect should know if they are designing a new boarding school?*', they replied:

Put it in the right place

Past C 01

A student within the same group and from the same school expanded this in relation to concern that the school was on a culturally significant site, which in turn led spiritual encounters (described in 4.4.2):

...someone later told me that...the boarding school is built on main burial grounds. Can't remember who told me, but someone told me. I was like, well we can never stop. That's why shit keeps happening here. So, that's something to take into consideration. Location.

Past C 01

Another student was similarly sensitive to the unknown potential significance of the school site:

Oh the area, the boarding house or whatever thing is getting built on, there could maybe still be some sacred, ancient sites around.

Current E 01

This concern was also extended to the unknown history of the buildings themselves, regardless of their location. A past student described his boarding school having a feeling of bad history that was hard to pinpoint:

I think another one is having...'cause I know a lot of boarding schools are all old haunted buildings, and just having fresh new buildings, and not having history in it. Well, not haunted but old, or stuff has happened there, or- no, it's weird but a lot of old Catholic boarding schools in particular...just, I don't know- obviously some stories are made up, but just the style of the building. They just create negative thinking I suppose. I don't know, does that make sense? It is hard to be specific about what that is.

Past A 01

The participant voices on this topic suggest that the site of the boarding school is important, but so is knowing its history. In all cases, the students found it hard to explain where their negative associations had come from, and they seemed to be

exacerbated by not knowing. As a result, the suggestion is 1) for boarding schools not to be located on sites with known negative or culturally significant history, such as on old burial grounds, and 2), regardless of the location, students should have access to information about its history. This may either reassure or validate their worries, in other instance it would allow them to relate to their surroundings from an informed position. This leads to the next theme, namely that some Aboriginal students encountered 'spirits' at boarding school, an experience for which they felt unsupported and un-informed as to how to manage while away from home.

4.4.2 *With spirits*

Student's encounters with spirits at boarding school were described with a high level of detail and extensive examples:

Mums mostly told scary stories about how one of the boarding houses got haunted and stuff like that...One of the students apparently went home because the home room was haunted or had bad spirits. I was really good friends with her... she kept seeing spirits in her room coming in to haunt her or something.

Current E 01

I don't know if you guys had it in your years, but when I went, biggest mob of girls left because they had demons and spirits in their rooms.

Past C 01

It was so scary, I just don't like it. It just gives me bad vibes. I walk in there and I'll get goose bumps and I don't know why.

Current C 01

Students identified that it was not necessarily the presence of the spirits that was an issue, but that they did not know why they were there or how to manage the situation. They described an overall lack of support by staff in handling the situation:

*It might seem funny to like...it seems stupid but...
when you say that to like, your family back home, of
course they're going to think, you know...they're going
to take it seriously and they're going to rip you out of
school, and be like...if you're being harmed by it
there's no point in me going there, since you need a
safe space where you know...And that's it, every girl
that had those experiences left. But there's no one that
stayed...And this is an actual real thing to us. 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

Solutions to dealing with a spiritual presence were identified by staff and student participants in the form of increased awareness and support for cultural protocol, such as by being welcomed to Country by a local Elder. Ongoing access to local cultural knowledge and support was also described as being an important way to navigate this issue:

*So there's a whole spiritual realm, they come in and
they feel there're spirits and they feel they're scared...
We do the whole culture thing of being smoked on
Country. We'll smoke your rooms if you need us to.*

Staff C 01

*That's what I'd do, smoke out the room. You have to
get an Elder to come and smoke out the room for you.*

Current C 01

Students identified their own 'DIY' solutions in the absence of this resource, with varying degrees of success:

She'd light incense in every night and I'd hold her thing over the smoke alarm so that she could smoke out our room every night. She ended up leaving the semester after. She just could not sleep.

Past C 01

She would sleep with water next to her bed and everything because her dad told her...We was trying to get elders to come in and smoke the room out and everything. It just didn't go away.

Past C 01

But even, I remember, it's just like the weird rules about the whole thing...At the time when all the demons were coming and visiting...I was not sleeping by myself...so I pulled my mattress off my bed, I was like, "I'm not sleeping in there". And I put it on the floor in their room and I camped there and after one night the boarding house told me I wasn't allowed to do it anymore. And it's like, "but...I can't sleep by myself!"...It's easy for them to say, "You'll be right" but it's like, "well... you know..." I think I just kept doing it for the rest of semester. And I think I'd just start taking the cushions from the couch, so it was less obvious.

Past C 01

In summary, students perceived their experiences with spirits at boarding school as serious risks to their wellbeing, which in extreme cases could lead to them returning home. Appropriate local cultural protocol, which may include smoking ceremonies, should be available to Aboriginal students in order prevent and navigate these experiences. From a design point of view, this could be supported by ensuring there

is appropriate ventilation in the bedrooms to carry out these activities without setting off fire alarms. As indicated above, bedrooms could also be designed for increased flexibility and co-sleeping in mind, in cases where students are afraid to be alone at night. Underlying many of these experiences was a lack of knowledge about the history of the school and the land it was built on. Therefore, increased access to the history of the boarding school site could also help alleviate the issue.

4.4.3 With family history

In some cases, the negative history associated with boarding school architecture was from the past experiences of family members. Intergenerational associations with the boarding school site was suggested to have an impact on student perceptions of their place identity and, by extension, to their sense of belonging there. This was explained by a staff member in two ways. The first was when parents or other family members had attended the boarding school and had an overall positive experience, they could transfer their past support network to the current student:

And that's that sense of belonging...For example, I had...One of the boys walked in. I looked after him 14, 15 years ago when I first started. He spent a lot of time in my house. I've got photos of him dressed as a pig and all sorts of weird and wonderful things...I had to do interviews out at [name of boys' school]...Next thing [name of past student] walks in the door, sees me, bawls his eyes out hugging me. He's 28 years old, and he's a gorgeous stunning kid from Green Island, and this sort of thing. All he did was turn around and say to his nephews, "Everything's fine now. If anything goes wrong or you need anything you just go and stay at [name]'s house." Done. The principal goes, "Is that how we do interviews now is it?" I'm like, "Yep." But it was that whole sense of belonging, that generational- "Don't you worry, you just go to [name]'s. [Name] will solve it." You know? That's it. That trust, and that sense of...he knew that straight up, okay, this is a safe place.

Here, the past student's experience gave a framework for the new students to construct boarding school as 'safe place' to be. In this way, the family history was a positive force in the new students' ability to feel a sense of belonging, as it gave them a sense of connection and trust from the beginning:

Connections, and that connection creates a bond. That is starting to happen. Poor little [student name], who English is his fifth language. You imagine how much of a struggle he has got, and how diverse life is between home and here, and that's a little island off the top of Northern Territory, but that sense of going straight away, "I can breathe," and have a start. I'm not saying it is a sense, but it's a start of going, "I can belong here. My uncle belonged here. I've got other people who will support me and if I'm not coping, I don't have to go all the way back home. Okay, I'll just give [name] a yell." Then I said to him, I went, "I'm going to bring you down the photos of your uncle, you can stick them up. I brought him down photos of his uncle and this sort of thing to make him go, "Yeah, this is okay."

This story demonstrates the role of having a positive intergenerational association with the boarding school in creating sense of belonging for students. It also indicates the ability for a spatial action to reinforce that feeling, in this case through displaying photos of the student's uncle in his personal space at boarding school.

Secondly, students' sense of belonging was affected in detrimental ways if there were negative intergenerational associations with residential institutions. For example:

... it's the big white building on top of the hill...It is an old Catholic church school thing...it's an old school. It's that Catholic thing.

The participant gave an example from her own family to illustrate why this was important:

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. He was taken away when he was in New South Wales, and he was sent in and out of different farms and all sorts... and then went through Queensland up to [town name] ...because Catholic churches are everywhere and they just shove you along.

This meant that in one case the father had refused to enter the buildings of a school the participant was working at, which was not understood by the non-Aboriginal school principal:

My dad, as I say, he had to bring something up. He goes, "No, I'll meet you in the car park." He would not come in. And then the principal of that school said to me...said about my Dad. "Why didn't he come in?" I said, "He won't." And she's going, "He should have got over it by now." I'm just going, "You don't get it." 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.

Staff B 01

In this way, family history could have a direct impact on how students perceive the 'place identity' of their boarding school. This could also explain the intangible negative associations that many participants had with the architecture, which may have been communicated to them from home:

If they won't come to the school because of the physical outlay, what you're looking at, 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

This suggests there is a need to consider how contemporary boarding school architecture is perceived by Aboriginal students, and their families, in relation to the long history of child removal in Western Australia.

4.5 Institutional character

Boarding schools were commonly characterised by the participants as feeling institutional. This was in relation to factors such as the colours in the boarding house, the darkness of rooms, the long corridors, and the feeling of being watched. This characterisation is summarised in the order of '*feels like prison*', '*feeling watched*', and '*blandness*'. These sub themes also reflect literature relating to environmental psychology, and theories of surveillance and control. This section proposes that consideration of the role of design in institutional settings has the 'capacity to create space in everyday life' as an 'antidote to the distorted versions of Foucault that

paralyse the subject within institutions, discourse and disciplinary power' (Dudgeon & Fielder, 2006, p. 408).

4.5.1 Feels like prison

Boarding schools were compared to prisons by participants in two ways: that there were physical characteristics of boarding schools that reminded participants of a prison, and, through the feeling of being imprisoned. In the third phase of the semi-structured yarning ('*Boarding school*'), student participants were asked to describe their boarding school to the researcher, who in the case of most sites had not been there before. For the staff participants, the researcher asked them to comment more generally on how boarding schools were designed in their experience. In both instances, participants made direct comparisons between the design of boarding schools and prisons. Staff participants who had worked in multiple settings said that boarding schools were typically defined by long corridors and cell-like rooms:

They're very much set up... the same way the prisons are. You've got your cells, literally, you've got one long corridor, you've got your private cells.

Staff B 01

...into these long dorm rooms that are really cold. So I would have students come... that would come in and shut the door and they just don't wanna come out. The fear and isolation became a bit like a prison cell...literally.

Staff C 01

This was also described in another study, in which the perceived similarity led students to query their initial motivation to school away from home, saying '*it looked like a very big jail*' (Mander, 2012, p. 151). A past student described that in addition to the layout of rooms and corridors, boarding schools had similarities to a prison in the way that space was used to limit and restrict people for the purposes of discipline and behaviour control:

Different years have restrictions to going into different years corridors etc. Ours was going through a thing where people's stuff would go missing so they'd shut off the sections so you're only allowed to stay in your section of the year, like prison. Literally was.

Past A 01

In this way, the rigid physical layout of interior architecture was identified as an extension of the strict rules and routines at boarding school:

Also, the dynamics of the area if that makes any sense. It's all just structure...if it was more loose, I want to say, you feel you're not on a tight strict plan. Everything is just so structured.

Current D 01

These examples highlight the expectation for students to fit into the rigid structures and protocols at boarding school. This can contribute to an institutional feeling, illustrated by comparisons to prison, rather than a home-like one. This leads to the next issue that can contribute to institutional place identity, which is that students feel the surveillance at boarding school reflects a lack of trust from staff.

4.5.2 Feeling watched

Student participants reported the surveillance of staff at boarding school as negatively impacting their sense of belonging. One staff member explained the reasons behind this:

A sense of belonging also means trust, so therefore you have to have a relationship with each other and have a trusting relationship.

Staff B 01

However, in direct conflict to the creation of a trusting relationship was the extensive surveillance measures reported to be incorporated into the design of boarding school architecture:

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

In addition to this overt form of being watched, students also reported a general feeling of being noticed and judged, which they felt implied they could not relax:

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 me.

Current E 01

This feeling was sometimes attributed to the way spaces were designed, particularly the hyper communal shared spaces that ensured full visibility to staff. Three current students explained that the only place they felt they could go to have a private conversation was in a small outdoor courtyard:

Speaker 1: You have no place to go to talk to someone one-on-one. It's always busy.

Speaker 3: It's closed in. If it had more space where you didn't feel like you were trapped, it would be more freeing.

Speaker 2: I guess 'cause the houses are so small compared to others.

Speaker 3: We only have that little area.

Speaker 1: *And no-one really sits out there 'cause you feel like you're being watched.*

Current D 01

Overall, there appeared to be a recurring tension in the research between the need for boarding school staff to fulfill their duty of care through supervision, and the perception of students that this is a barrier to their sense of autonomy. As this staff member described, there are expectations set by parents that need to be met:

And I suppose then also, just from the management point of view, you don't want to give them too much freedom. Because you do still have to manage them, there is an expectation from the parents, that actually when they sign their girls over to here, that they will be managed in a certain way, and that actually they don't probably want their girls in Year Twelve to be going out all the time and having all that freedom. They want them to be here, and nurtured, and looked after, and cared for.

Staff F 01

The way that this supervision could conflict with a feeling of home was illustrated through a description of the process of what happens when a student is too sick to attend school:

So, the kids have to get up out of their bed, go to the medical centre, stay in the medical centre... So it's that process as well. Again, that's not your family normal... how to be loved. You know? It's that fitting into a structure.

Staff B 01

It seems that the high level of regulation and supervision can at times lead to students' feeling a lack of freedom, negatively impacting their overall sense of belonging. As

Rogers (2018) puts it, this can lead to a feeling of being 'trapped' at boarding school, which may require a subsequent 'loosening' of strict rules to address:

While the somewhat restrictive structures of boarding schooling are essential in keeping order and routine, there needs to be a loosening of these at times when the strands of relatedness are stretched for Indigenous girls at boarding school.

(Rogers, 2018, p. 218)

Benveniste (2015) suggests that this high level of regulation exists because 'adults do not value adolescent behaviours that involve unstructured activities such as 'hanging out'' and so they 'often do not provide the spaces and settings for engaging in less-organised and less-regulated leisure activities' (p. 170). This highlights a potential role for interior design. When planning a boarding school, designers might ask themselves, 'how can this space allow staff to be aware of student activity and know that they are safe, while still affording students a sense of autonomy?' As outlined in the next section, the institutional characterisation of boarding schools was also because of the repetitive and generic nature of the current interior architecture, another challenge for designers.

4.5.3 Blandness

Students described the superficial aesthetics of their boarding schools as bland, repetitive, and generic. This reflects the common tendency in large projects described by Campbell (2017), to 'use lots of similar furniture and material finishes rather than designing unique yet cohesive spaces' (p. 170). She explains that spaces designed in this way have a different feeling for occupants than a home:

For instance, in a single-family home, it would be unlikely that the same chairs would be in the breakfast room, the sun-room, and the foyer. Typically, each space would have its own identity and there would be an organized variety of furniture and finishes in each space.

(Campbell, 2017, p. 170)

A lack of variety in the specification and design of boarding houses was often commented on by participants. While they expressed appreciation for functionality and efficiency in some cases, there was a desire for variety and personality:

And boarding is just so bland, all the colours, everything. It is a very bland space. Even your couches are a grey colour in some rooms, and the ones in our house are leather black. Having a different colour and spicing it up a little would help.

Current B 02

I think every room pretty much is identical.

Staff A 01

More specifically, it was made clear that choice of colour can affect the personality and feeling of spaces:

Bringing the colours through. You want the warm colours, you want the cool colours. Whatever, but the more natural colours, not a stark white.

Staff B 01

I've written down vibrance, I hate being in dark tight rooms, so vibrance, colours or just warm pastels or something.

Past B 01

I'm a really colourful person. I love colours, not just one specific colour. So having rooms with different colours just, yeah. Yeah, variety and everything.

Current E 01

It is important to note here that while 'vibrancy' seemed to be important for creating positive place identities, this does not mean that brighter and more colourful spaces should be the default position in attempts to reduce the institutional feelings of a boarding school. Students explained that brightly coloured materials and furniture could feel clinical or patronising, further exacerbating the institutional feeling and overall lack of personal connection. For example:

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

Also just with the designing of furniture et cetera, I don't know how other people feel about it, but at [school name] they have colourful furniture, I don't know if you saw... the couches, yeah, and the carpet is all colourful ... It just makes me feel like I'm in a hospital or something. At home you don't really see a purple couch or something. I just think that they're trying too hard to make it too vibrant and bright.

Past A 01

You do not want carpet that is, like- we've got this ugly green colour. It's like baby's vomit. It's really gross, and it's been there for like, 50 years. We had some people come in, and they were like, oh, they've got the same carpets. And they were there from a 50-year reunion...The girls literally came in, and they're like, oh wow, it's the same.

Current B 02

The data seems to show that both the complete absence of colour and extensive use of very bright colours can imply a sense of formality that participants perceived as inconsistent with a residential typology. In other words, neither extreme feels home-

like. Rather, participants tended to suggest gentle or natural colour schemes in the permanent features of the space, such as walls and furniture, with the suggestion that the colour, or 'vibrancy', be from temporary and personalised decoration. For example, through the placement of indoor plants, photos, cushions, and personal objects. It was suggested that this would be more in line with how a home setting feels:

...colouring is all natural. It's all...you know it's natural. There's bush, there's plants, the colours...earthy colours, that sort of stuff. And that's accessible to everyone. You know?

Staff B 01

I think colours good and all, but I think you should definitely go for neutral tones, like browns or whites or black...But then use accessories to use colour...Like colourful pillows, cushions on the couches. That's a lot more realistic to home than having purple couches, and colourful carpets. I know in the rooms at [school name] as well, with cupboard doors, they've painted colours as well like red and yellow. I think just having classic wood or something, that wood look, would be a lot more homely in a sense.

Past C 01

The data suggests that colour can contribute to an institutional feeling within boarding houses by being either 'very bland' (Current B 02) or 'bright and yuck' (Past C 01). In response, it is suggested that a gentler colour palette, one that is perhaps derived from nature, could be 'spiced up' (Current B 02) by temporary personal decoration to

create a more 'home-like' space. More detail about how this personalisation could occur and the current barriers for students in doing so are presented in 6.4.

4.6 Conclusion

The themes presented in this chapter suggest that the 'place identity' of boarding schools is important in multiple ways: the site, the architecture, and the interior design. This identity should be distinct from home, informed by history, not be overwhelming in scale and style, celebrate Aboriginal culture through environmental symbols, and be aligned with a single dwelling style of residential design to not feel institutional. This may result in an overall more positive and informed perception of the boarding school environment by the students, one which supports the development of their sense of belonging. The participants' voices suggest that place is an important part of Aboriginal young people's formation of their sense of identity, and in turn, their perceived identity of places has an important role to play in determining whether or not they will feel a sense of belonging there.

Chapter 5. Social Atlas

How we are, how we dwell, how we live are all implicated in interior design.

(Perolini, 2011, p. 173)

5.1 Introduction

This chapter presents perspectives on sense of belonging in boarding school in relation to the social world of the residents. From the data, it is proposed that interior architecture can be thought of as a 'social atlas' that could help students navigate the positive and negative aspects of togetherness at boarding school, as described by participants. The previous chapter presented participant perceptions of the place identity of their boarding schools, concluding that this can be challenging to Aboriginal students' sense of belonging. It was highlighted that boarding schools can feel institutional, and subsequently it was suggested that it may be beneficial for the building design to be more aligned with a residential typology. Here, the focus is shifted from the overall identity of boarding schools to the social dynamics that can be facilitated or imposed within them, through design.

The idea of an atlas (a book of maps) is used here metaphorically to explain the potential role of interior spaces as interactive social tools. As opposed to a single- and two-dimensional map or diagram, the concept of an atlas calls a more complex understanding of information into view, using multiple lenses to understand geography, the process of cross referencing between individual maps, and the dependence of readability on user knowledge and interpretation. As an interior, this is conceptualized in a multi-layered way, containing both social and spatial information. In this metaphor, the physical design of boarding school buildings is an atlas to be read and interpreted, and the social environment of boarding school is the world which must be navigated. The previous chapter highlighted some of the current associations and message embedded within the physical environment of boarding schools, whereas this chapter presents the social 'landscape' that participants of this project navigate. Here, the focus is on the social maps, guides, and references which could act as a form of social equipment, or atlas, in their boarding school journey.

The participants of this research described benefits and challenges of living in a high-density shared environment. These are described in the first theme of this chapter; '*Navigating togetherness*'. Here, it is highlighted that 'alone-ness' and 'together-ness' are both able to be damaging or conducive to a sense of belonging at different times and can mean different things to different students. The stories shared by participants indicated that there was not a universal or 'correct' design solution for this, rather, issues arose when students lacked a sense of choice and control over the situation. As such, the recommendation based on this theme is that there should be more opportunities for different types of 'alone-ness' and 'together-ness' generally, and between which students should be able to determine their own path. In other words, there should be a middle ground.

In response to the social experiences described in '*Navigating togetherness*', the next section, '*Creating a map*', presents strategies described by participants for students to connect more easily and meaningfully with one another. For example, they described the benefits of visually representing locational information, such as aerial photographs of students' home-towns. Student participants also stressed the value of understanding the social map of their boarding school. For example, being able to identify who was related to who, and being able to convert kinship information between Aboriginal students from different language groups. To access this knowledge, students described the value of having older family members or friends in the boarding school. It is proposed that this combination of locational and social mapping can increase Aboriginal students' sense of belonging by reinforcing their knowledge of relatedness. In this way, social and spatial knowledge is produced as an interconnected process.

The third theme; '*The atlas typology*', presents design ideas for boarding schools that support the social needs described by participants. In response to the idea from the previous chapter that boarding schools can feel overly institutional, one of the main ways that participants suggested interior design could help increase sense of belonging was by making the boarding house more like a 'normal' family environment. The potential social function of circular space is described in '*Circular*', noting that the way students' constructed circularity was not limited to circular floor plans. Participants described the potential social benefits of having smaller zones within larger spaces, which is summarize in the theme of '*Nested*'. The idea of this was that additional boundaries and thresholds could help to increase student engagement with

existing common areas. This was in response to staff concerns that students can become socially isolated if they do not leave their bedrooms, and to student concerns that they are overly surveilled when they do. Finally, participants' views on the important role of having '*Options*' within student housing are presented. Together with the other themes of this section, this creates a proposal for an overall accommodation typology that supports students' navigation of the social environment of boarding school. In other words, the interior architecture can be thought of as an 'atlas' of social and spatial information.

5.2 Navigating togetherness

This theme deals with the positive and negative experiences of 'alone-ness' and 'together-ness', each of which can have extreme manifestations within boarding schools. Many of the themes here are preceded by research and theory in environmental psychology that link high density living with perceived housing efficacy, stress, and wellbeing (Campagna, 2016). As Campagna (2016) notes, domestic settings can 'encourage or frustrate our experiences of home as a personal and social space' (Campagna, 2016, p. 264). The existing literature suggests that there are demographic differences that affect perception of environmental factors such as density, adequacy, efficacy and stress. Extending this, the themes presented here relate to experiences specific to demographic characteristics, such as the participants age, gender, personality type, and their Aboriginal identity. These should be noted as contextual factors which may limit the transferability of the findings.

As described in the literature review, loneliness is not the same as alone-ness, and social isolation is possible within crowded settings. So, as it is possible to be surrounded by other people but still feel lonely, it is also possible to be 'enmeshed' or 'parallel' to a social environment without feeling a deeper sense of relatedness and belonging. Therefore, a sense of belonging is understood to occur when a person is 'actively involved with another person, object, group or environment' and when that involvement also 'promotes a sense of comfort, well-being and anxiety-reduction' (Hagerty, 1993, p. 293). This is an important distinction to make in this situation, as it has been found that the involvement of Aboriginal students in boarding school with the people, objects and environment around them is often the direct cause of anxiety, frustration and tension. This section details the experiences of togetherness in the order of '*Making a mob*', '*Getting split up*', '*Isolation*' and '*Privacy*'.

5.2.1 Making a mob

How come an Indigenous student makes friends with the other Indigenous kids first at school?

(‘Geraldine’, quoted in Bobongie, 2017, p. 132)

Aboriginal and Torres Strait Islander students often create strong connections with each other in the initial transition to boarding school. This is a known pattern in the existing literature, and was similarly reflected in this study by past and current students:

...but all the girls just like making a mob. Okay, well let's all go down the shops. Okay, let's all go have dinner now...Even when we were at school, I didn't sit with any groups at school. We'd just sit with all the black girls.

Past C 01

Speaker 1: 'cause we all connect, we all click really quickly and really easily...or like...I feel like when we meet the new girls we click really quickly.

Speaker 2: 'cause you can just relate.

Speaker 1: Most of the Indigenous girls are related. So it's like a big family.

Speaker 2: or they're from the same town and they just know each other...it was the Indigenous girls 'cause you would just talk to them. They made you feel at home.

Current D 01

So, a lot of them ask to sleep together for the first few weeks. So, I have three or four students, some of them in one area, all sleeping together.

Staff C 01

This is why the Aboriginal kids will all stick together because they're going, "At least we're all together and we know we're all the same." Hold on for dear life because we're in a rough sea here, quick hold on.

Staff B 01

As discussed in the previous chapter, it was made clear by students that inherent relatedness to one another was an essential foundation for establishing meaningful initial connections. As such, the need for space that allows for gathering and a higher sense of relatedness to surroundings was described by participants. For example, the following participant described the need to have a room that everyone can be in, carefully defining that it's not the room that creates the sense of belonging itself, but that it is necessary in providing the environment for the belonging to occur:

So that room, I think, is also really important in feeling that belonging because you have to be with everybody to feel like you belong somewhere, because you can't feel...you can't just walk out into a room and be like, "I belong." Like, no...you're just like, "This room suits me," you know? The only reason you feel like you belong somewhere is when other people make you feel like that. But it's both ways. So I can make someone else feel belonged, but people can make me feel like that as well.

Current B 02

The staff member found that while the need for an intense closeness may be temporary, it is essential to allow this proximity initially in order for the students to build a bigger sense of cohesiveness and belonging in the long term:

Yeah, but what you're trying to do is to build the spirit, build the cohesivity, build the belongingness, and you want kids, wherever they're from to connect as fast and as quickly as possible. And spaces can do that if you've got the right spaces, it will allow for that inclusivity, you can have activities designed around the spaces that will encourage people feeling like they belong. So that, that kid quickly interacts.

Staff C 01

It was found that the qualities of space described by participants to create a sense of belonging were applicable to both private and public locations within the boarding school. It was also found that having a critical mass of Aboriginal and Torres Strait Islander students in the first place is essential for creating this family-like dynamic between students:

I do say to boarding houses never bring less than two kids from the same community down because you need that support mechanism. In terms of people, we try and build up 20 kids in the school system so that way you've got someone that you can relate to, can talk to. But at the same time, you have enough non-Aboriginal people around so that you can still learn how to negotiate your way through mainstream.

Staff C 01

Here, the easy friendships are attributed to relatedness; through sense of connectedness and in the 'relatability' of their shared experience. One participant explained that in her view these friendships played a critical support role based on a shared understanding of what it's like to be away from home:

... make them feel like home, even though they are far away from home. And motivate them even though they can like have ups and downs and stuff. But if they have like...they feel really down we could give them

space, to do their thing. Or maybe we could talk, or if they don't want to talk, we could stay silent. But it's good to be with people from the community. At least to start off with.

Current A 01

One important characteristic of these friendships was that the members were not necessarily the same age. Participants described mixed-age mentors and connections as a positive force in their transition to boarding school, especially if they were from the same home-town:

I was lucky to have my brother in year 12 when I started in year 7...yeah, showing me the ropes. I think it makes it so much easier having an older sibling...I feel like it's an automatic respect, it makes it easier coming in, and older years will be like, "Oh, you're so and so's sibling-"

Past A 01

This reflects the findings of other studies in which participants describe 'sticking closely, often exclusively' to other Aboriginal students, or having a 'kindred spirit' within the cohort with whom to 'lean on' (O'Bryan, 2016, p. 225; Rogers, 2018, p. 206). The important role of peer support is a known challenge to creating and maintaining strong friendships in boarding school, without which major barriers to wellbeing and retention have been documented (Mander, 2012; O'Bryan, 2016; Rogers, 2018). However, what was different in this research was the description by students of how peer support related to the use of space. Referring to the bedrooms of older siblings in the boarding house:

It's somewhere you can go as well, if you need.

Past A 01

In the previous chapter, it was established that participants viewed familiarity with a place as a key part of feeling a sense of belonging. It was also outlined that the

physical and social environment of boarding schools were often unfamiliar, at least in the initial transition. In response to this and the described social behaviour of 'making a mob', one way of increasing a sense of familiarity could be to support Aboriginal students' proximity with each other through the design and use of space. This could be achieved making it easy for students to visit each other's rooms (as indicated above). Or the proximity could be facilitated by the organisation and placement of bedrooms:

... all of those things to create, within that boarding corridor, a feeling of safety. You can have people's faces in your corridor that are familiar to you, which Aboriginal faces are...there are kids that come out of community that have never been around non-Aboriginal kids.

Staff C 01

The staff member described this feeling of social safety, through proximity, as more important than the aesthetic or functional qualities of architecture:

... 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

As one student described it, the lack of familiarity could be overwhelming, resulting in a feeling that there was nowhere to go:

I feel like, cause 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.

Current D 01

In summary, the ability to be with other Aboriginal students was identified as a type of 'togetherness' that could increase sense of belonging for participants of this research. This supports the current literature and suggests that proximity between Aboriginal students should be supported through the layout and use of space.

5.2.2 Getting split up

Student participants reported damaged friendships because of staff intervention at boarding school. It is important for Aboriginal students to have strong relationships with one another to feel a sense of belonging, conversely, having these connections broken was damaging to their sense of belonging. Participants described the challenge in maintaining such friendships, sometimes because of disapproval from school staff. The current student participants described their experience of going through an extended phase of disconnectedness in response to rules set by staff:

Speaker 1: And we have rules where we literally can't be in a big cluster. It could be like putting four or more of us together. Otherwise it would be considered too loud.

Current D 01

It's like you get in trouble for even hanging out together.

Past C 01

In their view this had been a happy social gathering, but they described being told that it was intimidating to the non-Aboriginal students:

Speaker 1: It has happened to us before. We all used to sit together and then...I understand being in a group you get loud, but-

Speaker 2: I don't know, well they said that girls were intimidated but we literally were just sitting there-

Speaker 1: *-having dinner, laughing together. Trying to get to know each other.*

Current D 01

They described how this experience challenged their sense of belonging, not just within their peer group, but in relation to the whole culture of the boarding school. The perception that they were not allowed to come together, and be themselves, led to long term damage to those friendships:

Speaker 1: *They made that a big thing and we...it was something we all came together and were like "this is us", feeling like-*

Speaker 2: *Marginalized.*

Speaker 3: *After that we all just drifted a little 'cause we weren't...we didn't have that thing-*

Speaker 1: *The whole point of being a part of it early on is to be interconnected with the girls as well as the boarding house. But when you force to separate us, it's just going to break connection.*

Current D 01

In this case, the students described their proactive formation of connections with each other to feel a sense of belonging at boarding school. However, this connection was seen in a negative way because the shared space could not accommodate the sounds of their conversation without staff perceiving their activities to be disruptive. It is possible that the perceived disruption could have been avoided by there simply being more meeting spaces with better acoustics. Unfortunately it seems that this also feeds into a previously described pattern that Aboriginal students feel watched, the distinction here being that students were physically made to separate from each other, which in their eyes may have transformed an intangible suspicion into a confirmed truth.

The belief that staff intentionally keep Aboriginal students apart from one another was expressed by some participants. As one student suggested, this could be based on fears held by the non-Aboriginal staff and students that stem from stereotypes:

To be honest, I know a lot of the white people have a few stereotypes when it comes to black people being in the same room. They think we're scheming to kill them or something...we get it all the time...I don't know what's going on there...I know a lot of us feel very judged when it comes to the white girls sometimes.

Current B 02

Similarly, a staff member described the common negative reactions in her experience to encouraging Aboriginal and Torres Strait Islander students to gather at school, proposing that promoting these strong group friendships was seen to be:

...the opposite of integration, opposite of assimilation, it's the opposite of all those things. It's the ghetto. It's separation.

Staff C 01

The participant rejected this view, instead she advocated to '*separate them first, get them strong, and then they come back (to the main cohort)*' (Staff C 01). This related back to the important role of familiarity in feeling sense of belonging to a place, as she explained that within the often rigid and structured programming of boarding schools it is important to '*at least put some Aboriginal kids near each other*' (Staff C 01). In her view, it was important to consider that students can be exposed to racism from non-Aboriginal roommates:

...they would never ever, ever allow two Aboriginal kids together. They would always put them with a non-Aboriginal person and that was my aversion. Because we didn't know the attitudes of the other student...there was no discussion...so I had one

instance where this guy was quite racist. He wasn't comfortable and I had to intervene and get him out, but...it's easy when you have two Aboriginal kids together.

Staff C 01

This staff member explained that despite her experience with the success of clustering bedrooms of Aboriginal students together to create a sense of community, there was resistance to the approach:

So, I argued black and blue...can we just cluster them? Where their rooms are...can we just at least create a little bit of community? So, putting an Aboriginal kid in an all non-Aboriginal corridor, non-Aboriginal area, was horrific. I would beg and plead, please can we just do clusters of three or four?

Staff C 01

Some participants recalled taking this into their own hands by gathering and co-sleeping in secret with other Aboriginal students:

Like I remember...sneaky sleepovers...to meet all these older Indigenous girls. We'd invite younger sisters as well and stuff and we'd used to just go into one of their rooms or just huddle together into one room...you had to do it secret-ish.

Past C 01

This issue is important to consider when designing interior spaces as group bonding was often reported to have occurred in student bedrooms regardless of (or in direct defiance of) rules set out by staff. Students frequently described the bedrooms of older friends or family members as a location for support, relief, familiarity, and for being 'looked after'. In this way, bedrooms of older students were described as important sites of belonging; however, this also raises issues for students who are not

already included within this intimate group and are confined to the limitations of their age specific bedroom location. In response to this, it is proposed that bedrooms of varying types and functions could be clustered to allow for 'free-range' mixed age interaction to occur. As discussed in Chapter 4, the setting in which this takes place was described as a 'long corridor' of 'private cells' (Staff B 01). Combined with the perceived experience of 'getting caught' and 'in trouble', this could lead to a sense of over regulation and imprisonment for students.

In summary, student participants were sensitive to staff and peer perceptions of their presence when gathering in groups. This self-consciousness was validated in some cases by staff interventions on group gatherings. It should be an important consideration in the design of boarding schools that sometimes student gatherings are loud and, therefore, a single shared common space with low acoustic absorbency would prevent some student groups from feeling that they can be themselves without disrupting others. Considerations for the overall layout and organisation of boarding school spaces are outlined further in 5.4.

5.2.3 Isolation

As noted at the beginning of this chapter, alone-ness and loneliness are not the same thing, and the level to which individuals experience social isolation is dependent on the perceived quality of the relationships available to them (Buchholz & Catton, 1999; Baarsen et al., 2001; Cacioppo et al., 2009; Russell et al., 2012; Utz et al., 2014). In this research, the issue of social isolation appeared in two main ways. First, there was a trend for staff to be concerned about students spending too much time alone in their bedrooms. Second, Aboriginal students can find the bedroom arrangements at boarding school overly individualistic and lonely compared to home. Both trends point to a potential role for design.

The trend for staff participants to be concerned for the mental wellbeing of students who became socially isolated was usually described in terms of time spent in bedrooms:

I don't know if you've noticed, but the students tend to sit in bedrooms and don't really use the common space at all.

Staff B 01

It's actually just making sure that they don't just sit in their rooms isolated by themselves and feel really lonely.

Staff F 01

One staff participant suggested that for some Aboriginal and Torres Strait Islander students the forced alone-ness of single occupancy bedrooms could be traumatic:

So we bring them into a boarding house, which is "here's your own room", they've all never slept alone, cousins slept together...Their door closed, so I've had a lot of trauma with students who've never slept with the door shut. The darkness scares them. They're in someone else's country. There's a lot of fear. The boarding structure creates a lot of fear in this isolation from other people. They share beds, four or five people to a room. The houses are overcrowded. There's always noise and it's silent; It's black. So they have a lot of fear. A lot of people have trouble sleeping. We're dealing with those sorts of issues.

Staff C 01

One staff participant explained that when it was partnered with a feeling of not belonging, isolation could have a destructive impact on Aboriginal student's mental health and, in turn, their overall engagement with education. This was also an example of how social isolation does not necessarily mean being physically separate from other people, it can be a perception 'in yourself':

Mental health's a big thing. If you're not having that sense of belonging you become isolated in yourself, you become introvert. You start self-doubting and you've got a whole mental health spiral that goes down that way. And then what happens is either you start self-harming, or you act out and you get expelled. So, there's your two extremes. But that's the reality, and we have a lot of kids that do both. So then if they're expelled that creates a pattern of: "I'm being kicked out of this school, I'm going back home with a failure attached to me, I haven't lived up to the family expectations", and that creates this whole cycle before you even get in anywhere else.

Staff B 01

One participant in a past student group described feeling the beginnings of this isolation herself. In her view, it was because the activities she usually enjoyed at home were not possible, and there was nowhere in the boarding house to 'go and hang out':

When I came back from school I just went straight to my room and I was just not interested in going, like, seeing anybody and everything...straight to dinner, get back to my room...'cause there was no other place that I could go and hang out. I like being outdoors doing stuff, like fishing and everything, and then not being able to do that I was like, "what am I supposed to do?", so I did nothing.

Past C 01

To avoid experiences such as this, there was an attitude amongst staff that students should be kept busy and engaged in group activities as much as possible. As one staff participant put it, there should be a 'buzz' in the boarding house:

There's always something going on. Whether or not it's a sport, or they go to dance, or whatever, they're

kept busy. But it's not just a pointless busy-ness, it's actually being part of something, the team building I suppose, at it's rawest...it's actually making sure that they're engaged, that they're building up their friendships. So, therefore, they do feel like they belong. People know them, they've got friends. There's always a buzz.

Staff F 01

This idea was raised by other staff participants, too, however, there was a difficulty in engaging students in the shared spaces of the boarding house outside of structured activities:

It's very difficult, unless you're running an activity and you're running something that they want to do, they don't usually want to come out and spend time in this space, which tells me that there's no ownership, that there's no...whatever we're doing, it's not engaging them.

Staff A 01

It was suggested that the students' interest and proficiency with technology could be a way of engaging them more in these spaces:

...they want the privacy, and I get that, but perhaps if we had more high tech stuff, some iPads that they could play games on in this environment, out in this space, or connect their phone and then have photos up on the wall, just a bit more high tech stuff than what we are currently offering.

Staff A 01

It was also suggested that the lack of engagement with the common room during student's free time was due to their need to charge personal devices:

It would be great to have a charging hub (in the common room). It sounds ridiculous, but that's why they're in their bedrooms, it's because they've got the power point, and so everything is around the power point, even when we go on camp, it all revolves around the power point...a charging area with nice chairs that they can sit back in. Because even when they're at the fire, they're all on their phones. So, it's very different, trying to engage kids who are focused on phones.

Staff A 01

Also, if you're thinking of design right? Because obviously we gotta hand in all of our electronics, when you're thinking about it, go and put chargers or charging points in each single place where you put your laptop because the amount of times I pick up my laptop in the morning and it's not charged and then I have to go to school with my charger and charge my laptop in class.

Current B 02

This issue could be solved by providing more power points in the common area which, as the staff member suggested, could be arranged in ways convenient to relaxing or socialising. The deeper issue of students not feeling ownership in the space is something that will be discussed more in the next two chapters.

The second pattern relating to social isolation was that, for some students, there was a challenge in adapting to the sleeping arrangements at boarding school:

We've stopped sleepovers in the last couple of years, but we used to always have girls sleeping over in other rooms, and it is completely natural and normal for them to have five or six girls in one room, three in a

bed is not a problem. I think culturally, this doesn't suit them.

Staff A 01

Most people, back at home, they put, they put beds closer to each other...Well I have, like, little sisters and brothers, like, to sleep with me...I make them go to sleep first...or I can just tell them stories. Or they tell me to do things like singing or make them laugh.

Current A 01

...especially Aboriginal kids coming from a large family, there's kids always around. Many haven't slept in a bed by themselves and that's another thing that you have to work with boarding staff. "Hey, these kids are going to be hopping in and out of each other's beds." It's not because they're running amuck.

Staff B 01

One staff participant suggested that *'there's a sense of closeness with bunk beds that isn't with the single beds'* (Staff A 01), which could be helpful for creating a more communal feeling. However, some student participants described their aversion to sleeping high off the ground:

Yeah most of us don't like sleeping in the bunk beds...just move to the floor, cause it's too high.

Current A 01

In addition to the sense of community and familiarity that could be better supported by bedroom design and, as described in the previous sub themes, some participants indicated why shared bedrooms meant that every student had a social safety net when they were struggling:

I know in my room by myself, especially because I never had a roommate, I could cry in my room and no one would even hear me...Because I know when I was by myself I could just convince myself to be more upset whereas the girls...when girls come in and be like, "Okay get out of your room come sit in the common room have a chat with us." It just sort of breaks it up which is good. That's why I think the more rooms is sort of better. Like the more people in a room...

Current B 02

My findings, or belief, is that they need to have someone else. I would never, I don't like the idea of putting a Year Seven in a room by themselves. Although some would think that that's what they need, because they live in a room by themselves at home. But actually, if they've got someone else with them, if they're having a bad day or they're feeling a bit sad, or feeling really happy, they've got someone to share it with. And I know that the girls do take care of each other. So they will come and tell you, she's a bit upset, or something's happened. So there's someone always keeping an extra eye on them, whereas I think in a room by themselves where they can shut the door, and be really isolated...and even if you are feeling a bit down, just having other people in and out.

Staff F 01

In summary, both student and staff participants describe the negative consequences of social isolation for overall sense of belonging.

5.2.4 Privacy

There were varying perspectives on the privacy needs of students in this project. On the one hand, as described above there was a common identification that co-sleeping and increased sharing of rooms was necessary in some circumstances. In other words, sometimes less privacy was important for students' sense of belonging. However, the need for more privacy was also described, with students commenting on the lack of curtains, locks, and general personal space. In other words, while it could be damaging to endure forced separation for students who wished to be together, boarding school could equally be a challenge for participants who valued their space and independence. Although there were benefits of sharing rooms for reducing social isolation, some student participants explained their objection, due to lack of privacy:

And they're like, "We've put these things together because then it's like one big sleepover. They can all become friends, it's like bonding and all this stuff." Then it's like, Really? It's just. It's just zero privacy. You can't see what's going on at all.

Past C 01

No, we don't have a lock on our doors... the house mother, even if we're changing or something...they walk in. Or, other girls can walk in without knocking... if you're talking to someone you can't really talk to them without them listening... you don't get much privacy when you're talking to people.

Current B 01

Meagher and Marsh (2017) point out that 'for those motivated to find solitude, there is perhaps no more effective method than to seek out a physical environment that affords privacy' (p.193). In line with this, many students expressed a specific preference for a room by themselves:

For me I like rooming by myself...I just stay in my room and just sit there. Yeah, I like being by myself. I find it relaxing and that's just, yeah.

Current E 01

I wanted somewhere by myself. Because at home I used to stay in a room by myself.

Current B 05

I think if we were going to keep our rooms the same, I reckon they should make enough so we could all have our own rooms.' Because then sometimes you need... because you can be belonging too much. You need your own place.

Current C 01

I'm just a lonely person, and I love my alone space. Whereas other people I know depend on a roommate over there to have a few chats with every now and then.

Current B 02

Despite this apparent preference, it was also acknowledged by the same students that privacy was not synonymous with needing a room to themselves. Rather, the key point was that alone-ness should be available in some form when required. For example, during phone calls with family, having a personal conversation with a friend, or simply when in an 'angry mood' (Current B 05). In other words, it 'depends':

Sometimes it's good. Depends how I feel. So if I'm in like an angry mood or something, I don't want anyone around me, so I tell my roommate to be quiet or get out. And then if I'm in just a normal mood, I'll try to

socialize with her and stuff. So I don't mind her being in the room, but I would like a room by myself.

Current B 05

I guess it kind of depends. It depends on the day.

Current E 01

As suggested in one students' note (Figure 13), the important thing was that there was somewhere else to go if the bedroom did not provide the desired level of 'togetherness'.

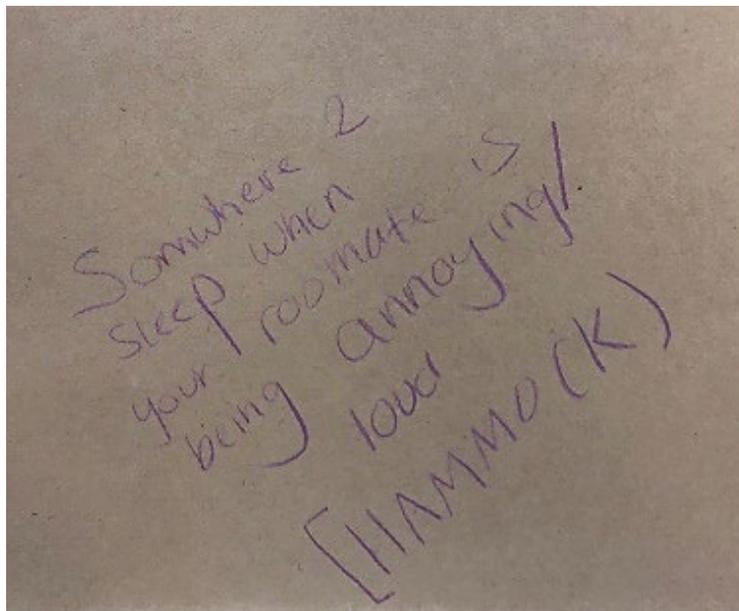


Figure 9: Student comment on brown paper roll

As such, privacy could be provided to students in other ways:

*Somewhere where I can go that's just mine,
somewhere quiet where I can be alone, whether that's
just my room or not.*

Past B 01

I guess it's a personal thing as well, people just knowing. Having a place where you can go that's private... 'cause your rooms aren't even private.

Current D 01

The indoor swings, you know those ones where they just hang off the ceiling... I don't know, somewhere to just chill, cause sometimes you just need to- to be alone and... curl up on your own. And just be somewhere where you can just... be yourself. Like a little cocoon.

Current A 02

Similarly, these student participants described how they mentally produced their own personal space, without necessarily being physically alone:

Speaker 1: I sit on, I lay on the bed and look at the ceiling. Like literally.

Speaker 2: Because when I went in there the other night I said, "What are you doing [name of friend]?" She said, "I'm looking at the ceiling."

Speaker 1: And I was like, "Yeah. That's what I always did when I was a kid... In my mind, I have this own little thing in my mind, like I picture myself like, "Ah what I would, like what I would do and like." I'm thinking I'll be in Europe, things like that... yeah, imagining.

Current A 01

Sometimes my roommates pretty much never in my room so I just sit there with my music on and that, alone. Or I like to clean, so that in a way is like a space for me. I like to do that or- not really making a

space. In a way it's a space for me because it clears my head...so just to be able to relax.

Current E 01

In these cases, the students described privacy as more than physical separation, rather something they achieved through their production of an imaginary realm. For example, the act of cleaning was a way of 'making a space' to relax. In terms of Lefebvre's theory of space production (1991), this is the creation of a 'third space'. The perceived (first) space was the physical environment of the room, the conceived (second) space was her exertion of ownership and care over the room through cleaning, and the lived (third) space was the experience of privacy, being able to relax, and having a clear head. Privacy in this sense is not tangible, but a subjective experience that could be constructed.

One staff participant discussed what she has observed over her career and the changes to how privacy is perceived and valued in boarding schools:

A lot of men would say, "Oh, that'll be fun", and "You've all got to be in it together". Whereas, in fact, times are different now. People do want their little piece of identity. I can understand where the people who were designing that might have been coming from...with possibly old values and old ideas...you know "it's good for them"..."toughen them up", and that's not actually...little boys who are 11 don't need to be tough.

Staff F 01

In response to the perceived evolution of values to include personal privacy and identity for students in their bedroom spaces, the staff member described the use of curtains at her school to divide space within the communal sleeping arrangement designed for year sevens:

And this is something that a lot of families say that's one of the reasons why they've chosen [school name],

we've actually put a curtain up, so that at the end of each bed, the girls can if they want, pull a curtain over, so that in the middle of the room there's a divider. So, they're all in this big space, but all of them still have their curtain. And that is all about still having...it's combined, it is a joined space, but actually it's still "this is my space".

Staff F 01

A past student who had attended this school also commented on this:

I liked the rooms...they had the little curtains separating, it was good because you feel tucked in.

Past C 01

Curtains have the benefit of being a visual barrier, and a territorial marker that can be adjusted at the students' discretion. As the participant above suggested, when the curtains surround the students' bed this can also create a comforting womb-like effect. However, students also identified that visual and symbolic barriers were not the only form of privacy needed. Again, poor acoustics were highlighted as an issue in maintaining a sense of belonging:

I don't know if you can do this, but is there any way to make the room walls a little less sound transferrable?

Current B 02

While it could be argued that this should be a basic requirement for the design of any high-density accommodation, the student described the specific need for auditory privacy between bedrooms in boarding schools:

...my wall-mate, we call them wall-mates and roommates, so my wall-mate, she hears my whole conversation on the phone. But there's a wall in between us. That shouldn't be a thing...but she can

hear me. She hears everything. She hears my whole conversation, when I'm ranting. And I could be ranting about her sometimes, and it's just not a good time.

Current B 02

This student explained the anxiety she feels when she calls home to discuss her day with family. She pointed out that if she wanted to talk to her family about problems she was experiencing at school she may have been overheard by the same students she was having issues with and, thereby, alienating her further:

You obviously don't want everybody hearing your conversations because that makes you feel insecure...and it feels like you can't talk to your parents about things that maybe happened in your day, that are things that have upset you, because you're scared that other people are going to hear you, and other people might judge you and stuff...And obviously you feel a little bit out of place anyway when you come to boarding school. And the fact that you might be complaining about something that all the other girls find normal can put you out of that and make you...make you feel like you're not part of the girls anymore.

Current B 02

In summary, students identified the need for access to both private and communal space. The ability to share rooms, and even beds, can help create a sense of belonging for some students, but this did not apply at all times or to every student. Students also indicated that when they crave privacy this does not necessarily have to be their bedroom, it could be an outdoor space, indoor swing, or other isolated area within a communal setting. Consideration should also be made to the acoustic properties of spaces, as this seems to be a current challenge for students. It was found that different people have different privacy needs, and that it is possible to 'be belonging too much' (Current C 01). A variety of settings of varying levels of privacy,

therefore, could be provided in boarding schools to allow for this diversity. This would let students manage their experience of togetherness based on their (changing) needs. This leads to the next theme, which is that togetherness might be navigated more easily through an increased understanding of locational and social connectedness.

5.3 Creating a map

*It is genealogy that underpins Indigenous relatedness,
Indigenous bloodlines transmitting ancestral 'knowing'
and outlining how time and space exist.*

(Rogers, 2018, p. 6)

The idea of 'mapping' recurred amongst participants of this research. From their descriptions, it seems that the process of combining social and spatial is important in boarding schools. This could be thought of as an atlas (a collection of maps). In response to this premise, this sub theme presents data that describes the significance of building this social and spatial knowledge, the barriers for doing so, and possible methods for aiding this process. This is presented in the order of '*Locational mapping*' then '*Social mapping*'. This relates particularly to the early stages of transitioning into boarding school and the challenges of the initially unfamiliar social environment. The navigation of space by students and the concept of spatial knowledge to include a simultaneous social sensibility is also described.

5.3.1 *Locational mapping*

Residents of boarding schools must conceptualise large geographic areas if they are to create a mental map of the home locations of fellow students. It seems from the yarning and drawing that the scale and diversity of geographic information required for this conceptualisation is a challenge for students who come from much further away or from an extremely different cultural context. As one staff participant explained:

*So we have a real diversity that come down, and that's
all through WA, Northern Territory, Queensland. We've
even got a couple from Victoria.*

This could lead to a lack of understanding between students for the difference in one another's backgrounds:

Well for example, my year nine students, we were talking about fire management. I had four or five other Aboriginal students in that classroom and I asked them to contribute the whole time. And then one of the white kids asked me about community. I said, "That's really different for each individual kid." Then kids came up and said, "Well I live in Broome. I've got the shopping centre, I've got the movies." And then another one's gone, "I've only got the local ...general store which is the size of a deli" and then another one's gone, "Well I've got nothing. Literally nothing." ...and other kids are sitting there going, "Wow." And they'd been in their school for year seven, eight and nine. So three years with these Aboriginal kids and they didn't realize.

While in this example there was an understanding amongst the general cohort that some of the Aboriginal students were from remote places, a deeper knowledge of the implications of this for everyday life was missing. This gap in understanding suggests a need to incorporate geographic, social and cultural information into the boarding school environment.

To capture some geographic context and help students to get to know each other, some boarding schools do provide a map of Australia so the residents can pin their name or photograph to a point representing their home-town. This was described as an effective way of getting to know other students:

And I know it's done all the time but when you have the map of the Aboriginal language groups and when you see where all the girls come from, I reckon that,

even though it's...I enjoy that 'cause it's like, "you mob are from all the way over here and all come to this place"- Should just link it together. And each girl gets to leave their mark.

Past C 01

This example indicates that students perceived value in having their home locations visually represented, and, that by being actively involved in this activity their sense of relatedness was increased. The ability to 'leave a mark' is another example of how the built environment could facilitate sense of belonging through increased involvement, something that will be discussed more in the next chapter. Another participant proposed that there should be more photos and personal information on the map, providing access to more detailed social information:

I reckon they should have a map pointing to where everyone's from. And each person's photo with a little bit about themselves, the age, name, favourite sport, dream job, and as you come into the rec room, it shows all that. It's like you're pretty much seeing everyone without even being in the boarding house yet.

Past A 01

At one boarding school, however, there were challenges to doing this:

We've bought the cork-boards, we've put the map on it...it's too small. You need a big one...Really, really big.

Staff A 01

A group of past students similarly suggested that the mapping should be bigger, and that it could be a learning experience for non-Aboriginal students:

It'd be really cool as well if it's not just Aboriginal girls, to have non-Indigenous girls know what Country they grew up on and what country their homes are from, that makes me feel so good, like you're on the journey. We've taken you a little step further. I feel like they'd enjoy that as well.

Past C 01

While this type of mapping exercise generally seemed to be highly regarded by participants within the yarning and drawing part of this project, a map alone may not be enough to communicate the different lived experience or to generate an increased sense of social connectedness between students. In the example from 'Staff B 01' about the year nine students who did not know that some of their peers were from towns that had no commercial services whatsoever, a two dimensional understanding of location would not capture the differences in remote-ness between this environment and, for example, Broome. For students from metropolitan or inner regional locations looking at a map of Western Australia, the two may be indistinguishable from one another. This extra layer of contextual information could humanise the factors that are not captured by the common and simple exercise of placing a pin on a map to represent resident home locations.

Photographs were another way that participants described making these geographic and contextual connections:

Yeah, because family's really important, and when they were putting all their pictures up, it was a great connection in more ways than just a reminder of home, it was a connection from staff to students, students to staff...."Where are you coming from, what's happening in this photo, who's this here?" It created conversation, which is really good. But there's also the connection, so if we're ringing family, then we've got a face to a parent that we're talking to.

Staff A 01

This could also be implemented at a larger scale, such as aerial photography of home-towns:

I got some aerial shots donated by the department of land and it was amazing. They're beautiful aerial shots, they're artworks in themselves because you see the different colours of rivers and the sands, but the kids can walk in and go, "There's my house." You know? "There's this and there's that." And that then gives, also, other people an understanding to where they're coming from, because that's also part of that sense of belonging. Other people have to start realizing that you're coming from a different space.

Staff B 01

This example shows how photography allows a distinctively different function from an abstract map in that it communicates realistic and recognisable spatial information. Compared with placing a pin on an outline shape of Australia, this method could have significant personal meaning for students.

5.3.2 Social mapping

Access to social information, often through mentoring, was described as an important factor in how students initially established a sense of belonging within the social world at boarding school. For the students that described this experience, such knowledge was often imparted by an older family member or through contacts from the home community who could take the younger student under their wing. As well as providing the students with an immediate sense of orientation and identity within the school network, having older relatives or mentor figures gave the younger student access to additional 'real estate' within the boarding house in the form of the older student's bedroom, thus extending both their social and spatial 'map' of the building. A current student explained that while she had appreciated the social capital afforded to her by her older sister in this way, she considered this to be good fortune that is not available to all students:

Well, usually, um, 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

This highlights the difficulty for students who may be the first from their family or community to attend a boarding school, for whom it may be especially challenging to become social and physically oriented within the new environment. In response to this concern, some staff members highlighted the need to ensure that students were not put in this situation, by enrolling students from the same communities in groups (as described above by Staff C 01). It was also suggested that there would be value in having bedrooms arranged in a way that would give the younger students more interaction with their older mentors. For some students, mixed-aged peer relationships could substitute the familiar roles and dynamics of siblings and extended family at home:

They tried one year and I don't know whether it continued...It was a year 11 corridor, but there was only one year nine room in that corridor. We loved that...We liked sneaking into their rooms at night. They were like, "Jump in our beds." It felt like our big sisters and we'd always get caught...It was really good because the older girls, they'd look after us and be like, "You're like our sisters." But then yeah, we'd always get caught in their rooms.

Past C 01

Corridors were commonly reported by staff participants as being organised by year levels. This was described as an intentional strategy that allows the boarding house to accommodate different developmental and academic needs of each age group. While the concept of mentoring was generally valued by all participants, staff tended to view this in a more formal way than the students:

...there's always an older mentor, but it's a mentor, it's not a best friend. Which I think is really important.

Staff F 01

There was also a concern that younger students may be pressured to grow up too quickly if they spend too much time with older students, suggesting that the wish to fit in with some social situations could be beyond their developmental capabilities:

I said to the parents, "We want our Year Sevens to still be Year Sevens". They're just 11 year-olds. So they can run in the corridor, they can play hide-and-seek, they're not worried about what the Year Elevens will say, and "shut up when we're trying to study". Which I think does happen if it's mixed corridors...They are little girls, and they still need to have their little... you know, and actually sing and dance. Which is what they're doing. That is what they're all about...You grow out of that, your hormones change, and all of a sudden you do change.

Staff F 01

So, they don't get to just be a child. So, whereas at least for the little year sevens, because they're only 12 years of age. Let them be kids. Let a pile of Lego sit there, let a jigsaw puzzle sit here, all those sorts of things because they're more kid activities.

Staff B 01

This was highlighted as a reason for the intentional separation between year groups in the accommodation, which also included discouraging close friendships between older and younger students for a sense of hierarchy and respect to exist within the cohort:

Well no, we don't mix up the year groups... we still want the Year Sevens to sort of put them on a bit of a pedestal. "When I get to Year Twelve, that's what I want to be like". Because I think there is...well, you've got eleven year olds and eighteen year olds, you know there's seven years of difference. And I think the younger girls have to have a sense of "respecting your elders", sort of. That's something that should flow through.

Staff F 01

When presented with this point of view for comment, a group of past students remembered their inherent respect for the older students when in their first years at boarding school, and pointed out that this could actually have been more annoying for their senior role models:

I don't know whether the 11s loved it as much as us, but we loved hanging out with them.

Past C 01

This group suggested that, although overall there should be more connection between the spaces for different year levels, some spatial cues that denote boundaries for these relationships are also important:

Within the space, the younger girls have respect for "that's the older girls' space". Connected but sort of, "that's their space". Respect it...you look after each other but you also respect.

Past C 01

In the eyes of the student participants, family-like care and connection was not at the expense of respect, for them these characteristics of the dynamic with older students went together. It seemed from the yarning and drawing that a sense of spatial

ownership could help to reinforce the respectful and connected dynamic that was described.

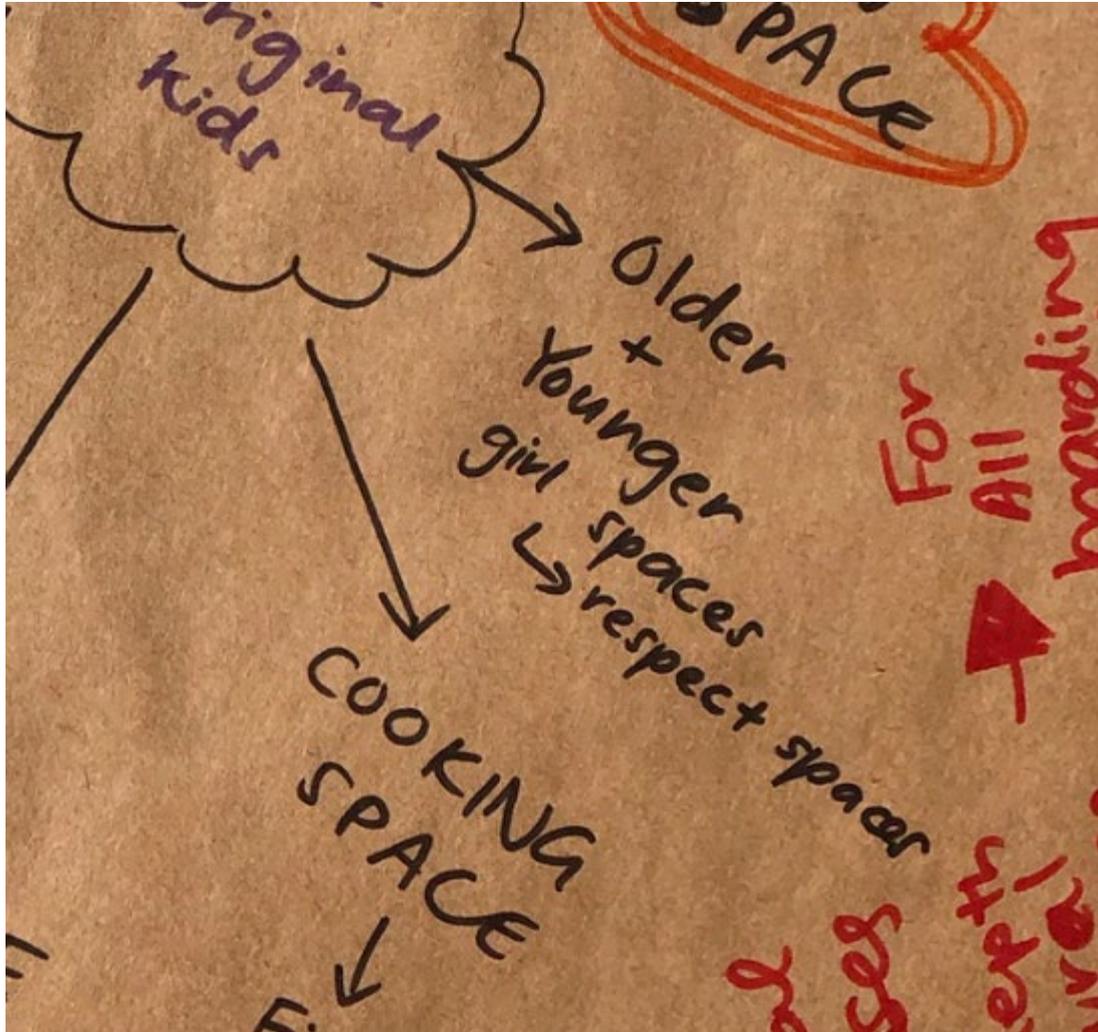


Figure 10: Older and younger girl spaces

Students also described the potential value gained from social connection and knowledge sharing with adults. This came from Aboriginal boarding staff, young mentors from outside the school, senior Aboriginal women, and local Elders. A past student participant described the benefits of occasional visits from senior women and Elders that she had experienced in her university accommodation:

Speaker 1: ... also having...like, senior women, like Aboriginal women like Nanna's and stuff come. To sit around the fire and everything, that just makes me feel like that family connection, even though they're not your family. Even just having an Aboriginal person to just go in there and yarn with, even an old lady, because we'd have so much respect for her.

Speaker 2:...if you don't want to talk, you don't have to talk and you just sit there and listen. Sometimes it's nice to just sit there, feel all the emotion around there and just look at the fire. Even just sitting there in silence is good.

Past C 01

As with the description of students sharing rooms with their 'older sisters' in secret, this example suggests that students perceive a benefit from interaction with Elders in the form of conversation and guidance, even if their personal role in the situation is relatively passive. Similarly, the social benefits of this interaction were reinforced through a spatial experience, in this case through sitting around a fire (the role of which will be discussed further in 8.2.4). The social information and connections that students access through mixed age relationships, an understanding of relatedness, and the provision of a nurturing and undemanding spatial setting appears to enable students to feel a greater sense of belonging.

From the data, it seems that there are opportunities for locational mapping to be combined with social information, such as that which is imparted by older mentors, to increase students' sense of relatedness and connection with one another. For example, it was suggested that in the previously described exercise of placing markers of student homes on a map of Australia, information from previous years could be retained. This could build long term knowledge of the relationship between boarding school and the places and people that they are familiar with. For example:

Speaker 1: *Even just to see the past, the past, girls have come from. And that we've all come to this place and gathered-*

Speaker 2: *-And you can also, that also instils a bit of pride in being there as well, knowing that those other girls have been there, you know? 'Cause you can just be like...oh okay. Yeah, I'm not the first one. Or, even if you are the first one. Made your mark.*

Past C 01

In this way, visual representation of long-term student occupancy through mapping has the potential to be a social tool. This means that the map could be used for more than just describing a surface level of information but could potentially assist in the development of new connections and narratives. This could also include ways of mapping family relationships between current students to uncover unknown connections and build a sense of relatedness:

Oh that would be interesting...Put strings between people, or something...who's related to who. You could put different coloured strings. Because if someone came that was new, for example yourself, and then you found out that you were related to [name of friend], but then you could say, "Well [name of friend] is related to this person, this person, this person." You would then maybe find out, "Oh am I related to them, then?" Which, you know, is a good way to build some connections. Like a big twisty family tree.

Current A 01

In this way, the simple activity of creating a map facilitates the deeper purpose of helping students to make their social and cultural identities visible to other students. This could be helpful in reducing the extent to which Aboriginal and Torres Strait

Islander students are required to explain and justify their identity to peers (this experience will be described further in 7.3.1):

I came from a place where everyone knew I was Aboriginal, everyone knew my family. I didn't ever have to justify. I never had to justify my identity before and then all of a sudden every day, every week.

Past B 01

Further, it was suggested that there should be a means of converting cultural knowledge between Aboriginal language groups, which would allow students to easily translate existing roles and relationships from home to boarding school:

What would be really cool is if for every group, a skin group can be converted into the other group so you work out where you're placed in that other mob's language group. So it would be really cool if you could go to boarding school, and because you'd had all of this consultation with your community before, they knew what your conversion was. And so, you could kind of come in and then show you, well these are your sisters, these are your Aunties, these are people you've got to call Nanna. I don't know how it would happen, or what it would look like, but for it to happen you'd have to start with a group and then talk to the groups that neighbour it. Like the Elders from that group, because they can convert it. The people that are around them already know what those conversions are, and then as you work your way out you start to develop the matrix for it, or the conversion key. So if you went to [name] mob, or [name] mob, they have six groups but they know how to convert it into the four groups for mob next door.

Past C 01

In this proposal, a complex combination of locational and social mapping that reflects Aboriginal and Torres Strait Islander concept of kinship would be necessary. This system is described by Dudgeon and Bray:

The complex Aboriginal and Torres Strait Islander concept of kinship, then, can be understood as cultural ways of knowing, being and doing, which also describe paths to strengthening social and emotional wellbeing. Across Australia, there are numerous words for such kinship systems, which are all culturally distinct yet share a common spiritual and political kinship with the land. Within the country now called Australia, kinship with the land is both the foundation and expression of being and culture.

(Dudgeon & Bray, 2019, p. 4)

This deeper engagement and respect for Aboriginal relatedness within boarding schools may allow Aboriginal and Torres Strait Islander students an increased ability to retain the key reference points in their life, and in turn increase their overall sense of belonging within the new environment. This involvement (through learning about relatedness) could be combined with representation (of meaningful locations) in order for students to understand their connectedness with the current social environment – which is reflective of Hagerty’s (1993) theory of connectedness.

To summarise, this research suggests that a sense of belonging can be increased for Aboriginal and Torres Strait Islander young people in boarding school when social knowledge is imbedded and supported in the physical environment. This process can be understood as the Third Space (introduced in 2.5), which here refers to the complex map of lived experience that bridges spatial and social knowledge. Spatial knowledge is the ‘perceived’ (first space), social knowledge is the ‘conceived’ (second space), and the relationship between the two is the lived experience (third space). The current data suggests that interior design can help create a sense of belonging by building this spatial and social knowledge as an interconnected process, and help the students find out about potentially unknown connections. This could also be

understood as a way of mentally mapping geographic information within the same conceptual plane as social relationships, combining the 'who' and 'where'.

5.4 Ideas for an atlas typology

By combining the 'who' and 'where' leads to the participants' perceptions of what a future boarding school should be like. The term, 'typology', in architectural studies refers to the comparative analysis of characteristics of the built environment into distinct types (Guney, 2007):

The constructive aspects of type as well as the vitality of typological thinking for creative thought in general is well recognized within the architectural community.

(Guney, 2007, p. 16).

This section presents key concepts for a new architectural typology for boarding schools, which is here termed as the 'Atlas typology'. In response to experiences and needs outlined so far, this sub theme introduces key concepts described by students in the order of 'Circular', 'Nested', and 'Flexible'. The overall result of these ideas is that the design of future boarding schools should include a central 'gravitational' social space, circular wayfinding, nested space, and backup satellite housing options.

5.4.1 Circular

The participants almost unanimously proposed circular layouts and modes of wayfinding for the design of future boarding schools. As one staff member explained, boarding schools tend to be very 'square':

The rooms are square; the gardens are rectangular; there's no soft spaces. It's very square. If you look at nature everything's round and circular...So, when starting this program, I said, boarding is square. The chair, the table, the house, the windows...everything became this square. Of course, everything in Aboriginal culture is a circle. There's that. So, creating

a space that was soft was hard in a boarding environment.

Staff C 01

Student participants described the function of a circular typology in their designs:

Yeah, no, it's definitely a circle. I didn't think of it as having any corners. Especially the fire-pit in the middle.

Past B 01

I'm thinking of it as a circle. And then inside this room there's this fire, and then so you can be sitting around the fire and there's all this stuff here for painting. And maybe we have plants over here as well. I don't know, it would just be cool.

Past C 01

This student explained that although his design was expressed as a circle, it would be possible to achieve a similar outcome within a square shape as well. The student provided an alternative version of the design as a square, showing that an interior layout with a central social space is most important:

I reckon the room is too square, I reckon if we had a circle rec room in the middle, and these things branching off... the central idea for this is just sitting down and talking. So, you can have your video games, your pool table, and your stuff like this- but even having it back in the square format first, you have that couched area in the middle.

Past A 01

This concept appeared several times in the student drawings, in the form of both squares and circles. Examples of these are shown below in figures 11-13.



Figure 11: Proposal for a circular layout

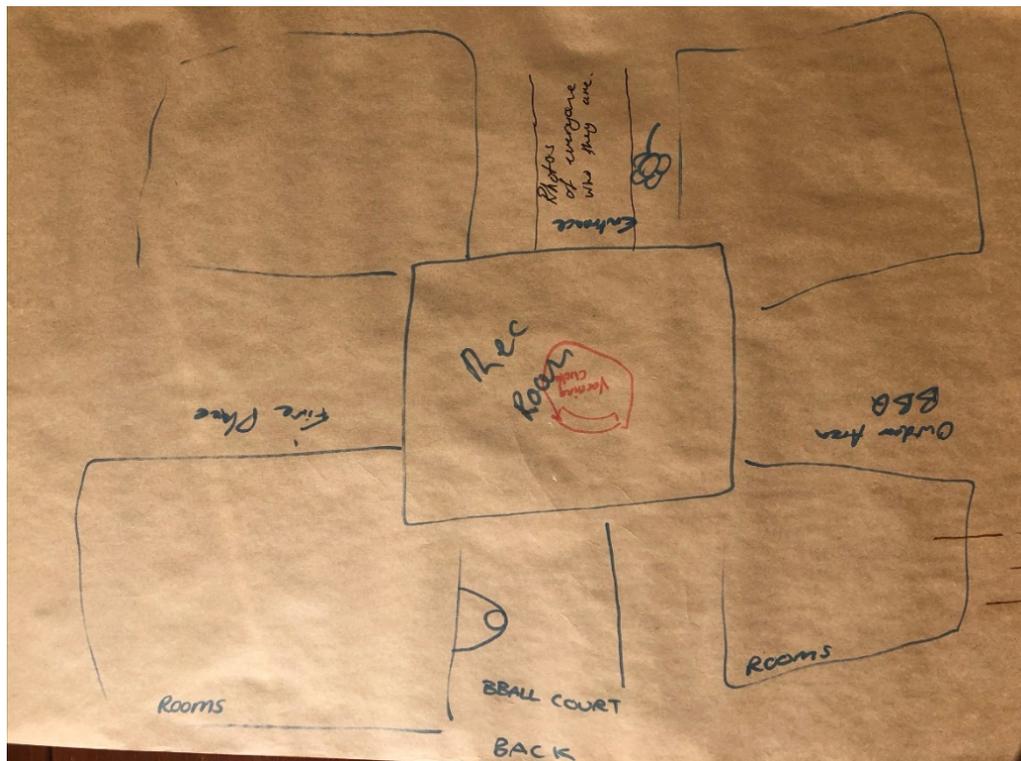


Figure 12: Branching layout from a centre space



Figure 13: Adaptation to include more circular clusters

The description above is one example of many socio-petal design typologies proposed by students in that the shape of the room was of little importance (though the preference was for a circle), but the ability for furniture arrangements to facilitate inwards facing social situations was key. The value of a circular typology was similarly described through the function of a central courtyard around which the building wraps:

You actually think that would be something if you could, and a lot of houses I know in the 70s and 80s, you used to have like a central courtyard sort of thing, with the houses built around it so at every point... You know, and I suppose even for these rooms along here... I mean this boarding house is very spread and sprawled. It's sort of just a wing's been built here and there, just to expand it.

Staff F 02

Throughout the project, 'circularity' was discussed as more than just the literal shape of a circle, but also in terms of symbolic meaning, intangible qualities, and a bigger picture way of thinking. Table 23 outlines the words and ideas used by participants to describe the circularity of their proposed designs in comparison to the descriptions given by participants of current boarding school design. The left column reflects the participants' perceptions of how boarding schools are currently designed. As introduced in Chapter 4 boarding schools can 'feel like prison', typically being square with long corridors, and strictly divided sections which were sometimes used as a tool for behavioural control by staff. On the other hand, the terms in the right column reflect participants proposals for a setting which has a central focus point around which activities can be organised. Within these settings there were multiple paths for wayfinding which typically flowed around the centre meeting space. The proposed spaces afforded flexibility and multiple functions to the occupants by softening the boundaries and thresholds that organise the building.

Table 23: Circular typology

Current design (as described by participants)	Proposed typology (as described by participants)
<i>Hard</i>	<i>Soft</i>
<i>Wings</i>	<i>Courtyard</i>
<i>Corridors</i>	<i>Central</i>
<i>Strict</i>	<i>In the middle</i>
<i>Not flowing</i>	<i>Branching</i>
<i>Rectangle</i>	<i>Around</i>
<i>Square</i>	<i>Within</i>

This is not a definitive list or simple binary comparison between 'circle' and 'square', but rather demonstrates the way that the circular typology has deeper social and physical qualities than just the shape of the building in a plan view. A circular topology also refers to navigation of the space (also known as wayfinding), the ability for multiple functions to point towards something central, the feeling of 'softness' in the environment, and the clustered expansion of spaces as opposed to

long wings. While students commonly drew designs in the shape of a circle, it is important to understand that it is the function of the space that should be 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.

5.4.2 Nested

Nested spaces were also identified as an essential component for a future boarding school typology. When prompted to design a physical layout, participants would commonly plan the space in a hierarchical order starting with a central meeting place most critical to establishing a sense of belonging. Other functions were then typically added within or branching out from this space. In one example (Figure 12) the central 'rec room' was drawn first, then the outer 'rooms', and finally detail in the remaining negative spaces, which were imagined as protected courtyards.

Though the proposed designs may not be the most economically efficient solutions in some cases, they display a visible pattern of nesting spaces within each other that could be applied to the built environment in many ways. Participants described the diffusion of large open spaces that could allow students to interact in varying sized groups:

With mine, I put big space for different spaces within that massive space where it's like a study area, a room where they can go and just relax and just get everything out of their head...You know how libraries have different areas? Yeah, it's kind of like that.

Current E 01

This nesting was often communicated through the specific example of study spaces, again highlighting continuous intersection of home and school life that students in boarding houses are continuously navigating. Students described the large communal spaces typically used for group study after school hours:

Also, study rooms are really important. I think if you're going to create study rooms, like we have one big study area, but people go there to group study so if you've got four groups studying, they're not all going to be in one big building in one big room.

Current B 02

It's pretty much like working in a communal sense, so if we have group work or tutoring we go into those rooms.

Current B 04

Communal areas were described as open and formal, and a wish for smaller and more intimate spaces to be carved out within larger volumes was expressed:

...it would be good to have more smaller areas, with a few couches.

Staff A 01

This could also be thought of as avoiding an 'all or nothing' approach to design, in which students are either completely isolated or completely public.

5.4.3 Flexible

There is not a 'one size fits all' solution for achieving a perfect balance between aloneness and social connection in the creation of a sense of belonging. The provision of options in the physical environment is necessary to prevent conflicts that lead to perceived and real exclusion from the school. Existing literature shows that when facing ostracism people have three choices; move towards (prosocial), move against (aggressive), and the comparatively less studied third option - to move away from (Wesselmann, Ren, & Williams, 2015). The ability to withdraw from a social interaction as a means of self-protection from additional pain is proposed as an effective alternative to prosocial and aggressive behaviours (Meagher & Marsh, 2016, p. 193),

but this can be difficult to achieve in a high density environment with limited spatial options.

The current research found that options need to be available in terms of variety of bedroom types, multiple wayfinding paths, diversity in social spaces, alternative living arrangements (which may ultimately include returning home temporarily or permanently without shame). A staff member explained the important role of options and flexibility in terms of expectations for students, which includes the pathways and outcomes that are deemed 'successful':

And I suppose what we need to do on a global level, is have options...what suits one student won't suit another. So as long as there are the options, and no person feels forced or stuck in a situation which just isn't working. And so I suppose, there shouldn't be such pressure on having enrolments, or making it work, or having a successful outcome, because I think with one of the scholarship schemes, and I don't know if it's still the same, but it was sort of like a successful outcome is when they actually leave at the end of Year Twelve. So they thought, "We're not gonna fund it..." "

Staff F 02

She also explained that a lack of options is often what leads students to boarding school in the first place, and that a lack of options within boarding school (and beyond) can compound existing pressure and fear of failure:

And sort of, I suppose, have the freedom to say there are other options. This set up, this scenario and being away from home isn't right for you, so therefore, there's this thing you can do. You know? And this, we've now worked out that actually, this would be better. And you're not a failure, you haven't let...let down your family, or you haven't let down the school, or let down yourself. You've actually just come to a

realization. And I suppose the reality though for a lot of families and their daughters is that there aren't options.

Staff F 01

Staff participants reported that there is a layer of behavioural management that needs to be considered in the provision of a safe and secure environment for all students. The staff participant of the outer-regional co-ed boarding school for Aboriginal students explained the ongoing effective role of two independent living homes on campus in preventing conflicts that might otherwise have resulted in students being reprimanded or expelled. These units were typically used by the school to supplement dormitory living in three ways: 1) as a reward for good behaviour by students; 2) as a preventative measure for students that are not coping well with high density living, and 3) as a transition option for older (sometimes graduated) students as they move towards employment and independence. The intended purpose of the homes was originally only as the third use - a transition to independence:

That's the idea, is that it's a stepping stone into independent living, however, they don't do their own laundry or really their own cooking, cleaning.

Staff A 01

The staff member explained that this often meant that the senior students who were having a positive impact on the younger girls through mentoring and visible example setting were being isolated, and that this negatively affected both the older girls moving out of the dormitory, and the wider social dynamic left behind. What became unexpectedly valuable was the ability to provide an alternative 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

The success of this solution was attributed to the freedom allowed by the independent living units, the residents of which still received full catering and laundry services, but were also able to care for themselves and function on their own terms. 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...In particular, there's one or two students who it has directly impacted. 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

Confirming that the option for independent living is not necessarily successful as a reward for students who were already fitting in and 'behaving well', students who have trialled the units reported the environment as 'nice' and having some benefits, but ultimately being lonely and boring:

...now we're in the independent living accommodation, and like we need independent living accommodation, it's really nice... modern and clean, but the old place had more character.

Current A 01

Independent living is a bit lonely, but it's got good stuff with the cooking.

Current A 03

Um, independent living is lonely...kind of sucks.

Current A 04

This aligns with the thinking that alone-ness is experienced differently by different students, and that a welcome relief for one student can feel like forced separation for another. This also builds on research that highlights the importance of 'fit between an individual's motives and the environment's capacity to satisfy these motives' (Meagher & Marsh, 2016, p. 197). In the study by Meagher and Marsh (2016), the participants showed an increased preference for socio-fugal (non-social) space following ostracism, a finding that extends previous work demonstrating self-protective motives to 'move away' (Ren et al., 2016). In this case the independent living units provided both functions by allowing students a better fit for their motives and the ability to avoid potential or further conflict. On a smaller scale, the same staff participant extended the need for flexibility to the design of bedrooms within the main dormitory:

... so, we had two singles as the first bedroom, they were the single rooms, so if girls wanted to be on their own...and it was a bigger bed, so if we had larger students, it was tailored toward...disability, you know? But I think every room pretty much is identical. Slightly different in the way it's set up, but I think it would be great to pull out a wall every now and then, just pull out a wall and make it a bigger bedroom, and allow a grouping to go in there.

Staff A 01

The potential success of this idea was confirmed by a staff member who has supported Aboriginal and Torres Strait Islander students through roles in both boarding school and university student housing. Her perspective was that the

aesthetic qualities and architectural form of the bedrooms are of little significance to student experience, but that the ability to quickly adapt to student needs, especially in the initial transition, is critical. The questions she asked of a space were practical and directly linked to creating belonging:

Can we put a bunk in there? Is the ceiling high enough for us to put a second bed in there? It's the flexibility of those places that help adjust in the transition. It's got to be flexible in transition.

Staff C 01

The types of options discussed so far have related to issues experienced by existing occupants of boarding schools. The following discussion details design options that relate to individuals not currently considered in boarding school architecture, such as parents of students, students with children, and students that don't fit into the gender binary of same sex private schooling. In all of these instances, it was identified that a smaller scale residential typology with mixed genders would be more flexible and conducive for creating a sense of belonging.

For example, a staff member described the limitations of current settings in supporting students who become mothers during their studies, and the ability for a residential scale setting to be more accommodating:

Well we've had that situation. I've had one of the girls who was pregnant, and I spoke to the school. And it was "that child has to stay...the baby, has to stay at home". I'm going, no. I said, "That baby can come with me." I said, "I will look after it. I will put it in to day care during the day-time." And all this. Find a way of working it. There are ways of working. Seriously, you don't have to go, your baby needs to stay all the way back home and - there are ways of doing it. The things is, you know, I understand you don't want to promote teenage pregnancy. Totally fair with that one. But this is a different topic. If they already have a child, they

have the right to an education too. It's like, well okay, what do you do to support that? Do you turn around and go, well we can set up...have that child in a unit... When I say child, the student is still a child. They still want to be a part of life, they want the social activities...so there needs to be a way of setting that up. It's not impossible...someone shouldn't be excluded because of that. It's a matter of working it. Then, you know, if you've got one then obviously it's really hard. But say you've got three or four. If you've got this house situation, you can have a student and a baby in a room.

Staff B 01

This staff participant also described the difficulty in accommodating students who were transgender or non-binary, and were not easily accommodated within the typical arrangements of single sex schooling:

... it's like where does that fit because if they're having this sense of belonging...there's been a couple of younger students who have been going through sex changes. So where do they fit in that as well, you know? It's just a very not flexible arrangement.

Staff B 01

Her suggestion was that a smaller scale residential housing option would provide the flexibility for accommodating more diverse experiences and situations than what is currently allowed in dormitories. She proposed that a typology more like a single-family home would help staff to be flexible and provide personalised care in such situations:

And that's where I think if you look at home environments...home environments are a lot more flexible. They cater to individual's needs, you know? It's like okay, I can see that you're having a really bad day so therefore, okay I'm going to leave you alone.

You've got your bed, fine. No worries. You're in my line of sight so I can make sure you're still checked on and this sort of thing.

Staff B 01

Another student described the potential of residential options for visiting family, however, reflecting that this could also provide challenges to who feels ownership over that space if it were separate from main dormitory buildings:

It would be so cool if there was a house attached to the boarding house where, if you had family coming down, they could stay there for the week or whatever, and you could just move in there. But it would be really hard when they left. I just feel like, I always felt when my Mum came to visit, I wanted to get out of there, out of the boarding house...it's like an escape. I wanted to go with them...'Cause if there was a house attached to the boarding house or something, then I would...I reckon that house would make me feel...'cause if my parents were in there and then they weren't there the next week then I'd feel...I'd get real sad...there's someone else's parents there! I reckon I would get really affected by that.

Past C 01

Based on these findings it appears that within boarding facilities of all densities, several types of housing options may need to be provided to allow for a variety of needs. As one student reflects, it is difficult to accommodate all students living in close proximity in a high-density environment, but by varying the sizes of clustered groups, especially by using a home dynamic, needs for both social respite and connection could be addressed:

Especially when it does come to belonging being able to say like be in a house with guys that you know. Guys or girls that you know. 40 girls in my room, in my

house, I probably know like 10 of them. You know what I mean?

Current B 02

In summary, participants felt it was important to have a variety of flexible options within the design of boarding schools so that unconventional situations can be accommodated. At a bedroom scale, options need to be available so that the quantity and size of beds can be easily changed. At a whole of building scale, there needs to be different type and sized bedrooms. At a larger planning level, a large boarding house could be supplemented (or perhaps replaced) with a small number of adjacent residential scale options.

5.5 Conclusion

The themes presented in this chapter illustrate that navigating a balance of togetherness and alone-ness can be a challenging experience in high density shared housing. For the Aboriginal student participants in this project, this was sometimes additionally exacerbated by environmental and administrative barriers to their gathering in a familiar way. In response to this several suggestions were made about how to create a greater sense of belonging through interior design that supports knowledge of the relatedness between people and places in the boarding house. As described in '*Creating the map*', this could be through visual representations or through access to a familiar and knowledgeable person. To put this mapping into practice, the research suggests that the overall typology of boarding schools could be designed in a way that better supports students in managing the type and quantity of their social experiences. This typology is proposed to be moved and gathered around in a circular fashion, to contain nested zones for various social scenarios, and be supplemented by additional spatial options. Importantly, students should be able to access settings that support the level of togetherness or alone-ness that they need in a self-determined way. In this sense, interior design can be thought of as an atlas-like tool that can be interpreted and deployed by students to navigate boarding school.

Chapter 6. Spatial Voice

When participants were asked what they would like to say to schools, their answers essentially came back to voice.

(O'Bryan, 2016, p. 187)

6.1 Introduction

This chapter deals with the fundamental need for people to 'appropriate their environments according to their everyday needs, desires and memories' (Daou, et al., 2015). The previous chapter described how interior design could increase a sense of belonging for Aboriginal students in boarding schools by better supporting their navigation of social situations. The potential role of the built environment as described in the previous two chapters was in terms of how it is provided to students. In other words, the 'finished product' of the architecture. In those chapters, the design decisions were in the hands of design professionals and school planners. In this chapter, the focus is on opportunities for interior design by the students themselves. The level to which this is possible has been termed as their 'spatial voice'.

Student participants of this research described feeling a sense of belonging when they participated in activities in which they felt they had an active role. This is discussed through the thematic findings of '*Participation*', '*Responsive environment*', and '*Self-expression*'. The theme of '*Participation*' outlines activities in which students described an active role that gives them a sense of belonging. Four examples of such activities are described. These are not an exhaustive list, but a representative sample of situations in which students have an individual role with a tangible impact. Next, the theme of '*Responsive environment*' outlines the issues created for students through a 'one size fits all' approach to designing personal spaces on a mass scale. Participant stories about inflexible climate control, inadequate lighting, and rigid furniture settings make a case to allow students a greater freedom to appropriate their personal and shared spaces to suit their needs. This leads to '*Self Expression*'. Participants linked this with sense of belonging, which came through in regard to the decoration of bedrooms, creative activities such as painting, and the ability to leave a permanent legacy in the boarding school environment.

6.2 Participation

An underlying premise of this research was that feeling a sense of belonging can increase overall participation and engagement with education (Morieson, Carlin, Clarke, Lukas & Wilson, 2013). Themes from the data suggested that this could be a two-way relationship, in that increased participation in certain activities were described as positively affecting sense of belonging. These activities had certain characteristics: Specifically, they were not rule driven, they were not dependant on a certain number of people to be successful, the participant could have an active role or passive role, and, importantly, their level of participation was a choice. Four examples of such activities are presented within this theme: '*Cooking and domestic chores*', '*Planting*', '*Caring*', and '*Playing*'. There was a common desire for activities which centred around caring and creating, which were equated with a feeling of acceptance.

Participants explained that the activities they were interested in were often not catered to in the boarding house. When these activities did exist, they could be overly prescribed by staff which was a barrier to student engagement. The data suggests that there is significant scope for residents of boarding schools to be afforded a more active role within the daily programming of residential life, the by-product of which would be a space that is produced by the students. This suggests that the environment should not be thought of only as amenity provided to the students, but something that is actively produced by them. In other words, there should be evidence in the physical environment that it is different because of the students' contribution to it - that their being there mattered.

6.2.1 *Cooking and domestic chores*

In this research, the role of interior design in making sense of belonging went deeper than aesthetics. As this staff participant described it, sense of belonging is about contributing to a group:

*...to belong to something you have to give up
something of yourself. You have to contribute, okay?
So how do I contribute to the boarding house? I'm just
here. That's not contributing. When you're in a family*

you have to contribute. I say to the kids all the time, you're a part of this family, you have to do something. Whether it's walk the dog, or wash the dishes, or dry the dishes...

Staff B 01

One example of this sort of contribution that is typically lost in boarding school is cooking. Cooking was identified in this research as a ritual with social value beyond basic provision of nutrition and taste. A problem for many Aboriginal and Torres Strait Islander students is that there can be differences in the food between home and boarding school. Lack of access to familiar food and control over the way it is prepared, was described by some participants as a barrier to their sense of belonging:

They don't cook fish or rice properly...and that's like a huge thing that reminds us of home. Fish and rice, and they just don't know how to cook it. They dry out the fish...It's too dry...And then they don't wash the rice first to get rid of all the starch, it's all starchy. It's about having something that reminds you of home, and a lot of the time that's meals. But like if it's not the way it's made at home...it's frustrating.

Past C 01

As explained by this participant, cooking can facilitate a type of communication and involvement that is characteristic of a sense of belonging:

And also, even the sense of belonging comes back to food...everyone communicates around food.

Staff B 01

This quote reflects the inherently interactive nature of food preparation, which can include an indefinite number of participants and provides a central visual stimulus that reduces the social pressure of direct conversation –a cultural imperative for many young Aboriginal people. However, this participation is not facilitated through the

mass serving of meals in dining halls, which was described as being a lost learning opportunity:

...the dining hall system is very much, again, an institution...I know the kids are sitting around tables eating together still, but you're not having that same interaction. You're not having that interaction in food. There was a big thing last night about food and how kids are not understanding food. How can they understand food if they're not cooking the food?

Staff B 01

The ability for food preparation to create social bonding was reported to have occurred on some occasions during school celebrations such as NAIDOC week, which a past student explained in this way:

We had to make the biggest mob of damper for the whole school.

Past C 01

This group of participants explained the difficulty in doing this with the limited cooking facilities available to them, saying it was 'not fun on the kitchenette' and 'there's not enough ovens' (Past C 0). Despite this challenge, they suggested that the event was valuable in creating a sense of belonging amongst the Aboriginal students and also with the wider student community:

...at some point, every Indigenous girl would come down and knead a bit of damper and if they didn't know how to make it they'd learn, and that was always really fun. And we'd have stacks this high. And it was just a common thing, everybody- we all bonded over that.

Past C 01

While events such as this were described positively, there was a view in this research that the expression of Aboriginal culture was limited to a small number of celebrations across the year, which did not feature in the boarding house:

Speaker 1: *They only do little things to do with Indigenous culture.*

Speaker 2: *Little parts of events or that stuff...Most students or families who are into all that cultural stuff, they find it hard.*

Current E 01

No, it doesn't flow necessarily over into the boarding house.

Staff F 01

It was expressed that it would be preferable to access this type of activity on a more regular basis: 'Something for me to do during the weekend' (Past C 01), and that this would in turn allow the students to plan social gatherings around a familiar activity:

It'd be just like hanging out and yarning with the other girls, you know, "we're going to do this, going to have a big cook up" and everything.

Past C 01

In line with this idea, many student participants proposed types of permanent cooking settings for the boarding house:

What about a room where you could just cook in when you wanted to cook?

Current F 01

So I put a barbecue area on the left, and a fireplace on the right. So I was thinking maybe a little fireplace we have a set day of the week, or every fortnight where you come together and maybe put something on the barbecue or have a dinner at the barbecue, or have a supper just before bed, around the campfire.

Past A 01

Many of the participant descriptions of cooking were also linked to a fire setting or were prompted by drawings that included a fireplace. These have been presented here, but it should be noted that due to the frequency and deeper social meaning with which fire was discussed, its spatial function will be discussed in further detail in the next chapter.

It was suggested that the lack of autonomy to engage in desirable domestic activities, such as cooking, combined with a compulsory schedule of less rewarding domestic chores (such as laundry and ironing), was not aligned with the characteristics of a home-like environment, and did not support their sense of belonging. Further, a connection was implied with the historical function of institutional education in preparing Aboriginal young women for domestic service:

What, do you want them to have a domestic job? I'm pretty sure that's what you want, so just give it to them. Let them have the oven, let them have the things that they can cook their food, if they burn themselves, they'll learn.

Current B 02

Participants noted that some cooking amenities were provided to students in the boarding house, such as kitchenettes and basic appliances such as a microwaves, kettle, and toasters. However, in these cases there were often restrictions on the age groups allowed to access the equipment. In one case, this was perceived as an unfair double standard. The student participant felt that this was an unnecessary withholding of an opportunity for independence, and that this did not carry more risk than other compulsory domestic responsibilities that they were required of them:

So if you're designing a kitchen, make sure we have a kitchen, I think if you're going to encourage girls, even if they are in year 8 or 7, if you're going to encourage them to be all independent, do their own washing, do their own ironing, ironing is just as hot as a stove, so don't think "oh my gosh, no, they're going to burn themselves." Just give them a stove so they can cook because you're already teaching them how to clean.

Current B 02

It should be noted that the issue of laundry was raised by many participants as a negative aspect of their boarding school experience, and one which made young women question the fair-ness of their arrangement compared with the experience of the young men they knew at other schools. Students who had attended all-girls boarding schools described their frustration for the expectation of them to do their own laundry, while knowing that residents of nearby all-boys boarding schools were not expected to do this:

So how come the boys school get their clothes washed, ironed, and put back in their room, and I got to do my washing every day? And it costs me a dollar to use the dryer.

Current B 02

In the case of the latter participant, the yarning took place at a mid-term boarders' camp for Aboriginal and Torres Strait Islander students. The participants' brother (Current B 03) overheard the conversation, reinforcing that at his school it was optional for students to do their own laundry and at no cost:

Speaker 2: *Washing's free.*

Speaker 1: *See!*

Speaker 2: *Mines free.*

Speaker 1: *No, you get your stuff washed for you.*

Speaker 2: *No, I wash my own sometimes, whenever I want to.*

Speaker 1: *Sometimes when he needs to.*

Speaker 2: *When I want to.*

(Current B 02, Current B 03)

This resonated with some of the other young women participants:

Doing your own laundry. That's so true 'cause guys don't do their laundry.

Current D 01

This issue further indicated a distinction between activities that promoted a sense of contribution and those that were perceived as chores. The key difference was the students' perceived autonomy over the level and type of responsibility they chose to take on in each. This participant's association between compulsory domestic tasks and being trained for a 'domestic job' also highlighted the deeper symbolic meaning that can be unconsciously communicated to students. In this case, the subliminal message was that the young women needed to learn the responsibility of doing their own laundry, and the young men did not.

The personal agency that can be inherent in group cooking and laundry was highlighted as a lost opportunity if spaces to do these things are not provided in the design of boarding schools. This participant described a scenario where food preparation allowed her to include many students, in a way that is responsive to their individual personalities and needs:

But yeah, it's the conversations. I'm sitting here chopping up... One of the big things we always used to do is cook stir fries because I'd go, "okay, I'll do the meat, you do the carrot, you do that." And you've got three kids...you're having this conversation around

really 'deep and meaning-fuls', which are totally informal, and you're not having to eyeball each other, that sort of thing. And it also gives you the opportunity to go, I'm going to walk away from this conversation. I can't handle it. And that, I think, is a really big factor. One, life skills, but also it's the conversations, it's that sense of belonging.

Staff B 01

This data also indicates that social rituals that contribute to sense of belonging can be facilitated through provision of cooking settings, especially those that allow for group participation. This would allow students to experience and share foods that are important to them, enable them to teach and learn about food, and to simulate a familiar home-like dynamic. In a design, this could mean supplementing large dining halls with residential scale cooking settings within the boarding house. Provision of preparation space that allows for seafood and other culturally familiar foods is a simple way in which design can contribute positively to student experience. For example, an outdoor kitchen area or well-ventilated indoor kitchen which students can access at their own discretion. The act of group dining is connected to the basic human needs of shelter and safety, but is also a symbolic ritual associated with home, family, and community. Importantly, participation in cooking should be driven by the students' autonomous decision making, and they should be able to control the extent to which they are engaged in the task.

6.2.2 Planting

The ritual of caring for and interacting with plants was identified by students as a way to help them feel an increased sense of participation within the boarding school. This theme refers to the specific opportunities for students to have control and responsibility for plants, a distinction from the previously discussed significance of designing boarding school environments to have strong relationships with local Country. In addition to the benefits of being able to see nature and be connected with the local environment, students described their wish to garden and look after something:

So, I like helping out with the gardening and everything and that we'll have to go to the horse yards and take all the horse's poo and then cart it through the house, when you're wanting to garden. I like being in the garden and outside.

Past C 01

Plants would be a good idea. I love flowers...someone can look after them when I'm gone, but I can look after them when I'm available.

Current A 01

But not fake plants, actual living ones...

Past A 01

I'd love to do the garden walls, you know vertical gardens? That would be so cool.

Current B 02

Students described a lack of natural light in their bedrooms as the main obstacle to growing a plant themselves:

...there was just never enough light...it was always too hot or too cold, and it would always die...but now I've got indoor plants everywhere. I've got outdoor plants. I've got the front of my house is a succulent garden, it's spewing out succulents.

Past C 01

I have a plant, it's a succulent, in my room. I got given it from some other person, and its name is Simon. It sits on my desk. But I don't get a lot of sunlight in my room, so it's probably dead.

In this project, participants described plants as both a way of adding personality to their room and an activity which they enjoyed. Student participants sometimes commented on the difficulty in keeping their plants alive, particularly during stressful periods of study or while away from the boarding house. However, despite these barriers to providing consistent care, this was a theme which participants were very enthusiastic about. Importantly, it seemed to be the freedom of curating, naming, nurturing and in some cases killing the plants was important for the students' sense of belonging. It is likely that simply providing and professionally maintaining plants within the indoor and outdoor spaces of boarding schools would also have positive implications for student wellbeing. However, what the students here were describing seems more to do with their personal sense of control and interaction with something living.

6.2.3 *Caring*

As there was a described social value in looking after plants, caring for living things generally was commonly identified as something that could contribute to a sense of belonging. Many of the students explained the novelty and sense of comfort that having pets in the boarding house could bring:

I mean, one of our housemothers ended up getting a dog. So that was pretty exciting. Even just in the courtyard running around with a dog. That was really good, and I was asking about the dog so that was really fun to have an animal there to look after...Even just like a pet or something in the boarding house, that was really good.

Past C 01

I think having an animal would be cool, having a dog or even a cat...It would be nice though, looking at an animal or having an animal there. 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

I mean, I think what people would really like at boarding, I don't know if it comes down to architecture, but pets. And having...I know we can't bring our pets, but if we had a boarding pet, like a dog, something that loves love.

Current B 02

Students explained that while small pets such as fish or crabs were sometimes allowed, this did not have the same effect as a pet that wants and gives love and attention:

And see, we had fish at some point. What do fish give back to me?

Current B 02

This sense of love and connection was also sometimes experienced through relationships with the children of boarding staff:

Even like little babies. Some mistresses that had their families and their kids...They'd leave and then come back with the kids. And so there'd be a little kid that was growing up in the boarding house, and they've got like 200 older sisters.

Past C 01

While it is important to acknowledge that these relationships are not directly dependant on the built environment, it is possible that they could be better facilitated through design. For example, specification of materials that are not easily damaged by pets, low level barriers between spaces that can isolate pets without interrupting human circulation, high quality ventilation to prevent animal smells being an issue, and connections between interior and exterior spaces that would let a pet be easily taken outside. Therefore, an extension of the need for flexibility that was identified in

the previous chapter is that it is also possible that an integrated creche, day care, or provision of on campus housing for a young family could provide an avenue through which students could develop caring relationships with children. As the past student above points out, these children would experience the unique attention of '200 older sisters', who could in turn benefit from the children's attention.

6.2.4 Playing

Staff and students alike identified that games and play are effective in strengthening social relationships and preventing social isolation. However, the benefits of play cannot usually be accessed by forced participation in organised activities. As one staff member explains, a pool table that was left set up and allowed students to come and go as they like was popular, but planned games such as quiz nights were less successful:

...we used to come out and we'd bring out board games, and we'd make a set time where girls could come out and we'd play board games with them, but it's just never been overly successful. You can't force them to. We've done two minutes to win it games nights, we've had quiz nights, game nights, all sorts of things. Yeah, they do enjoy the pool table...

Staff A 01

Despite this the students did include structured play, such as through board games and video games, in their descriptions of spaces that would help them feel a sense of belonging. It should be noted, however, that this was usually within the context of having many options that could be accessed at their own discretion:

Maybe one side of the room, maybe like for video games, and the other can be like the cups or board games.

Current A 01

Even if they had a shelf full of board games that when we're sitting in the common room and we're all just sitting there doing nothing we could grab out a board game or something.

Current C 01

Students also expressed the value of self-directed play that involves changing the environment. For example, one student describes using couch cushions to pad hard surfaces and then turning out the lights to play 'Murder in the dark':

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

Student descriptions of unstructured playful space aligns with research suggesting that often 'adults do not value adolescent behaviours that involve unstructured activities such as 'hanging out' and therefore 'do not provide the spaces and settings for engaging in less-organised and less-regulated leisure activities' (Macdonald, 2018, p. 170). The ability to have space for self-directed play with other students was identified as a way to cater for individual preferences, without the need for direct staff facilitation. In line with this, a student participant described the need for such a space to include a variety of zones and boundaries so that activities can be undertaken without conflict:

So I can make someone else feel belonged, but people can make me feel like that as well. But the only to do that is by having an area where everybody can sit down, where everybody's gonna have activities to do.

Current B 02

Based on the stories and design ideas of students, play should be facilitated both through the provisions of structured games (such as pool tables, play station and board games) and the opportunity for students to create their own imaginative play scenarios. In other words, play should be facilitated but not be overly prescribed. This could be through flexible layouts that involve un-fixed items, tactile materiality, operable elements within fixed or heavy furniture, and a generous quantity of space that can be adapted to a variety of situations.

6.3 Responsive environment

In the previous chapter it was proposed that it is important for the overall arrangement of boarding school spaces to be flexible. Here, the view amongst participants that the climate, lighting, and furniture of interior spaces in boarding schools can be too rigid is presented. Subsequently, participants proposed the need for these elements to be more responsive to individual needs. This theme is focussed on the topics of '*Climate*', '*Lighting*' and '*Furniture*', in relation to the control and comfort afforded to students in boarding schools.

6.3.1 Climate

Many participants commented on difficulties in dealing with cold weather and air-conditioning. One student described the difficulty in maintaining a comfortable room temperature in winter, linking this to feelings of claustrophobia and difficulty finding balance:

...cos you need try get a balance of warmth and coldness, because we have windows so we open our windows but it creates coldness in it but if you block the windows it's stagnant, the air, and it makes you feel claustrophobic and stuff.

Current B 04

This example also demonstrates how the design of the physical environment does not allow students to effectively self-regulate the climate of their rooms, and that there is often an 'all or nothing' experience with climate control. This participant similarly identified that uncomfortable temperatures can be a problem:

Never mind about oppression, what about the aircon?

Current B 02

Disagreements over temperature between roommates, if left unresolved, were not only uncomfortable but could also lead to a feeling of not being heard by staff. It must be remembered that many Aboriginal students are travelling to boarding school from far north locations that have significantly warmer climates than Perth and the surrounding rural areas. As one student explained:

No, you just think about it okay... you got one kid from Albany and you got one kid from Derby...and you want to put them in the same room together... 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 2 degrees, and then think it's okay... that's not gonna work for them.

Current B 02

In the participant's words, a solution to this could be:

...if you think about it when you're planning rooms and you put people together, you put the blackie with the blackie because you know they can stand the hot heats, and you put the whitie with the whitie because you know they like the cold.

Current B 02

The participant continued to stress the simplicity with which issues such as this could be resolved:

...don't be stupid about it, but if you are going to be stupid about it, just get separate Aircons and put a wall up. All you gotta do is put that wall, put it up and then give them half and half.

Current B 02

The need for thermal comfort is important for students who are in a colder environment than they are used to. Perceptions of temperature are linked to feelings of safety, and cold-ness has been shown to have an emotional dimension. This is to the extent that studies have shown a link between low temperatures and sense of rejection (Zhong & Leonardelli, 2008; Ljzerman et al., 2012). As shown in the current research, a corollary may well be that there is an association between belonging and warmth:

Even though we've moved around so much the things essential to me feeling like I belong there was that warmth and feeling safe, those are the two things. The way I create warmth in every bedroom that I have is candles and having really nice bedding and a rug or a carpet.

Past B 01

This example demonstrates that a 'sense of warmth' can be facilitated through interior design, suggesting an ability to use the relationship between temperature and emotion in a positive way. It would be useful to understand if a connection between temperature and sense of inclusion works in two directions, for example, if experiences of inclusion or exclusion can alter perceptions of temperature, and can lowered temperatures also affect perceptions of belonging? This is an area that is worthy of future research.

6.3.2 Lighting

Like the lack of nuance in temperature and ventilation within rooms, participants also identified a lack of responsive or appropriate lighting. The student voices describe both a physical effect and a symbolic association with warmth and light. These findings suggest that flexibility to control climate conditions on a micro scale is needed. This is important for students sharing living and sleeping spaces with peers from geographically different homes, who may have different perceptions of what feels safe, comfortable, or frightening. In this research, many participants referenced light or warmth in descriptions of environments in which they said they felt they belonged. The student participants also reported the important role of light in the overall feeling of a room:

I thought about lighting and stuff and I really couldn't stand the boarding house and the lighting...I was thinking about that because you don't think it's a big part of the room but it is.

Past B 01

In bedrooms, lighting was typically described as artificial and from one source (sometimes two if there was a study lamp). An overall lack of natural light was identified by almost all participants, with some students having no access at all:

...a window, because I think every room should have daylight coming in. 'Cause 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

One staff member also confirmed the positive effect of windows and natural light:

...if you know you can open up your curtains and you get a sense of, you can see the sky...that's something else I'd be very mindful of if I was designing another space.

Staff F 01

In addition to improving the aesthetic quality of the space and increasing students' general mood, provision of natural lighting can also help students connect with their surrounding geographic context through circadian rhythms. The following student explains the calming effect of being aware of the sun going down at the end of the day:

Natural light. You just see that outside and it kind of contrasts and you have the light dimming on you. I don't know, I kind of love that, that calms me.

Current E 01

Where students do have windows that provide access to sunlight, they are often covered with heavy curtains that completely block or expose the room:

I really hate the curtains here. They're just really big and thick and unappealing. They're just the same colour as the wall but darker. It's not a nice colour and it's not loose, it's heavy material...and they're just heavy and it just makes everything really dark, which is good, but you want the light coming through the window. It doesn't make it feel like your room. It doesn't feel like yours because it's just...there. I don't know how to describe it. It feels out of place. A thinner material where it wasn't like a blanket...The whole sun

on your face or it's just dark. Something in between would be nice.

Current D 01

While students did not consistently agree on the type of lighting that they prefer (e.g., warm vs cool), the common thread throughout the data was that in all cases it would be preferable to have more lighting types and sources within each room, especially more task lighting (for example, reading lamps). Some participants commented on the absence of a reading lamp or light switch within reach of the student's bed, which prevented studying or reading in bed at night:

But, I mean, they're not that great. It'd be nice if they had lamps or something...a reading light...because those lights aren't great...and it is annoying having to get out of bed to switch the light off.

Staff A 02

Another participant described the harshness of the main light in her bedroom, and the potential benefit of supplementary sources:

Then I also drew a lamp, because sometimes I'll be laying down on my bed or something, and I'll have the light on- ... But they can also be rather harsh, and I get headaches often from them, so if you just had a lamp on the side. And having different lighting, so both white and yellow.

Past A 01

Adjustable light sources, such as dimmers, were also suggested to let students modify the environment to suit their needs:

Have you heard of a dimmer? Just get one of those. Dim the lights a little before you go to bed...being able to dim. Because the lamp light's obviously

smaller, so it's not going to give as much light, but it's still a bright light. And so, it's like killing you...but if you have the other one on, it's huge, and it lights the whole room up...if there was a dimmer in my room, it would be used...

Current B 02

This example further highlights the 'all or nothing' approach to amenity, such as lighting, that is often the case in boarding schools. Whilst this need for increased variety in artificial lighting options was expressed, another participant noted that problems could also be resolved by increased access to natural light:

If I had more windows and more space to let light in that would also help.

Current B 02

In summary, students should have access to natural light, the ability to control the level of natural light entering the room (for example through operable blinds or sheer curtains), and multiple artificial light sources of varying size and type. Technologies that allow for a high degree of personalisation and adaptation such as portable reading lights, wirelessly charged lamps, or remote control of light settings (by students) could be explored further. Private and shared spaces should include a high level of natural light, as well as multiple artificial light sources in order to reduce reported feelings of claustrophobia, eye-strain, and headaches.

6.3.3 Furniture

Across the yarning, a need for furniture settings that are more responsive to student needs were proposed. This included re-arranging furniture to make a space feel more like their own, and in turn increase sense of belonging:

I guess that freedom to put up what you want and to have your room the way you like it...if you want your bed in that corner, you don't like your bed in a corner, you like your bed in the middle of the room...I think a

big point is having that space to be able to change the room to the way you want it.

Current B 02

...swinging our room around...there's just something about the way the bed is facing...because it gives the girls...like you know, 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

The benefits of arranging and adjusting spaces are usually not possible due to the in-built and fixed furniture of most boarding school bedrooms that prevent any adjustment. Consequently, some students reported frustration, discomfort, and even injury in their unsuccessful attempts to customise their bedrooms:

What frustrated me so much was that the desk was attached to the wall...fixed to the wall. Like it didn't have legs or anything. It was just one of those floating desks, it's just here. It was in the wall. And it's like, I'm on the second floor and I've got this huge window that seemed higher than the wall, and I can't put my desk here, with the view of the quad and the grass and everything outside. So I would just sit and turn myself, 'cause I'm still going to look out this window.

Past C 01

So, I remember when I was in Year 9, all the girls thought it would be cool to move the beds- so I moved my bed. 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.

The potential benefit of furniture that is responsive to student's personal choices was extended beyond their bedrooms to common spaces, with staff and students explaining the ways that they regularly utilised flexible settings. The following staff participant described the way that two long tables will often be re-arranged, depending on activities and the dynamic of the space at the time. This was usually alternating between two small settings and one long continuous table:

We'll change it. Sometimes it's this way, sometimes you've got two like that and then sometimes you've got two right next to each other, so it's a big square and we can all sit around it. But this way works well, because of the paper.

Staff A 01

A student described big group sleepovers as one of her favourite things about boarding school, and that would not be possible without movable and deconstructable couches:

Because when we have the sleepovers, we turn them over and push them all over...we push all the couches together. Because these are all separate, there's no couches that are connected. That's one couch, that's one couch, that's one couch, but they're all pushed together the same as these...Well, when we're all staying in the common room, when the girls are staying in there, for example, it gets really cold and everyone shares their blankets. So everyone would just throw all their blankets in and all their pillows and you literally just use all the blankets and pillows together...Because when you go home and have your family stay over, you'll either stay in the room, share the lounge room, you have all your beds together. And then when we go to the boarding house when we're

staying in the lounge room and everyone is just individual now in couches, they'll just be doing their own thing, not really social. But at least if we can push them all together, then we're more socialized.

Current C 01

The ability to control and change furniture allows students to feel an increased sense of belonging by taking ownership of their space, using spaces in a way that most suits them, and by facilitating social situations that would otherwise not be possible. These descriptions are in line with existing research showing that moveable chairs are a 'desired form of seating due to the choice, flexibility, and comfort they offer' (Mehta & Bosson, 2010, p. 782). In the case of boarding schools, the provision of flexible furniture may allow students to recreate the familiarity of communal sleeping, which was reported as something that many Aboriginal students miss about home. In response to this, furniture should be designed with the specific intention of flexibility and customisation. Ideally, it should be possible for students to create multiple (or infinite) functioning layouts within a single room without injury or excessive difficulty.

6.4 Self-expression

Self-efficacy is an established concept that can lead to an increased sense of belonging (Breakwell, 1992). It is a 'feeling that one is in control of a situation or place' which can manifest 'in the way people decorate their homes' (Anton & Lawrence, 2014, p. 452). From the data it appears that many participants felt more channels should exist through which residents of boarding schools can temporarily or permanently imprint their identity upon the interior environment. This is in line with literature suggesting that domestic interior decoration can be a reflection of people's 'emotional evaluations about the environment', which in turn can improve the relationship between people and that place (Hayaty & Sakineh, 2015, p. 1261). The idea that students should have the opportunity to project values and ideas that they feel are under-represented in their boarding schools came through in three main ways: '*Decoration*', '*Creativity*', and '*Legacy*'.

6.4.1 Decoration

Student and staff participants described the value of self-expression through decoration, such as by arranging photos, and displaying drawings, posters, and objects. One staff member described the permission given to students to decorate their bedrooms, and the resulting positive effect:

So the other thing I suppose which rounds them constantly to home is in every room there are photos of their family. The girls can either, now with photocopying and all of that sort of stuff, and photos are so readily available to access. So, they just make their space their own. I think it would be a bit austere, and harsh and hard really. It's interesting because a lot of prospective families come and do tours... You can actually see, with their little kid, with their little girls. When they go and look at the rooms, and they see the love and the care that the girls themselves put into their room, and the pride they have in the space, that I think is why a lot of families actually decide to send their girls here.

Staff F 01

Another staff member observed that there was an increased pride in students when they were encouraged to display personal objects and awards:

One of the things that I think's really important with the dormitories, they used to be allowed to put up photos and things like that, and so all the girls used to stick up posters and photos of all their family, and it was just like their space, and it was great for us, because we could go in their rooms, and we could say, "Aww show me who these people are, show me"... it's really good.

Staff A 01

Freedom of expression in their bedroom to hang photos And, um, even certificates, like girls are being proud of certificates they've received while they're here.

Staff A 02

Decoration was reported by many student participants as an easy method to create a sense of belonging for themselves:

...photos, things like old memorable things...sentimental things.

Past C 01

There's a painting back home I would like to hang up, but there's no room. It's always what I dream about from home...Somewhere I can hang things on the wall. At home I can do that but we weren't allowed to at the boarding house.

Current B 01

No, what I have in my room is...I make it really homey. I love candles and plants and wood stuff. So that's like my whole room really. It's plain and simple. But really warm. It's a bit like simple clutter. Just like a candle freak. Candles everywhere. Yeah, I do like a lot of like art and stuff and hung up all around my room and around the house.

Past B 01

...they can have their own little things with their home that they like about it. And have their family photos and stuff...If they like other stuff like action figures they can put their little stuff in there, as well. And maybe

like this area they can put up things that they might like.

Current A 01

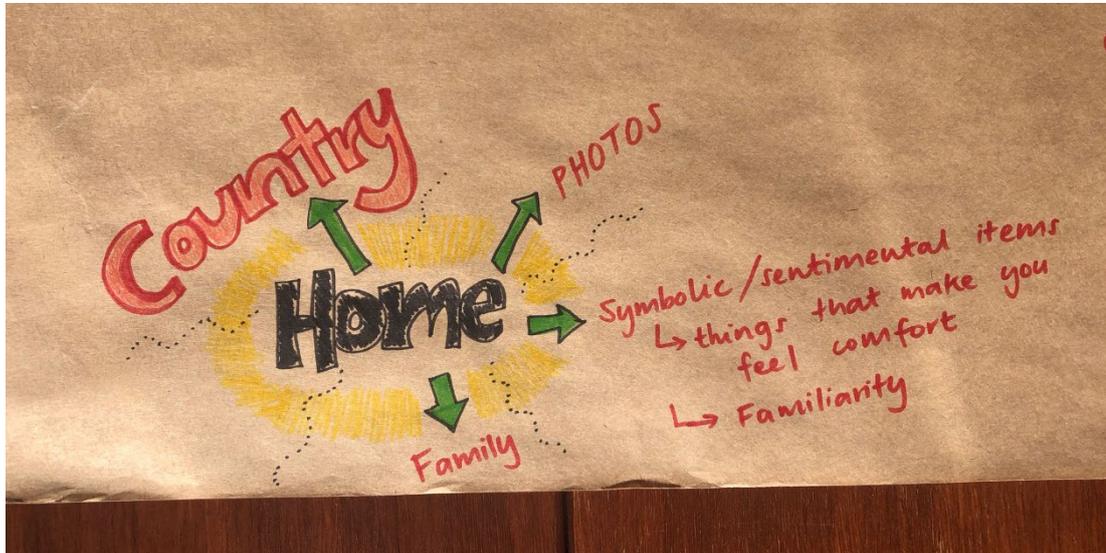


Figure 14: Participant mind map of 'home'

While the intention of the staff appears to be to provide freedom within bedrooms, the reality of actually doing this involved several obstacles. The two primary barriers were; 1) frequency with which students changed rooms, and 2) restrictions enforced to protect surfaces from damage. It was explained that it can be tiring and feel pointless to decorate a room knowing that this would change again at the end of the term:

Speaker 1: *You just decorate it really...Well, actually no 'cause you have to limit down what you have here-*

Speaker 2: *-and most people have their stuff in boxes.*

Current D 01

So I think those type of things also limit your room and your rooms do feel a little depressing to be honest and you have to spice it up to make it like...to put things on your walls and stuff...I don't do it anymore but that's just 'cause I don't have time for that.

Because the other thing was that you move every semester. Or every term. That's four times a year. It's a pain to pack, because you have to pack everything up before you leave. You have to take it with you. Indigenous girls usually get a cupboard where they can store things because we can't...So it's like...you want stuff to make you feel like you're home but if you have too much stuff then it's a pain.

While the student participants almost unanimously reported that decorating personal space was a self-initiated activity that could help them to feel a sense of belonging, it was also apparent that the constant packing and unpacking of rooms sometimes became too much of an effort to make this seem worthwhile. The second barrier to room decoration is the common rule across many boarding schools (notably this rule also extends to other types of housing for young people, such as university student accommodation and rental properties) that prohibits the use of adhesives such as 'blu-tak' and sticky tape on walls in order to prevent damage. As one student put it:

You can't just chuck a nail in the wall.

Other participants described these rules in more detail:

Speaker 1: We do have photos up there.

Speaker 2: There's a little corner in the common room for photos from 2017 and 2018. And then when 2018, they'll go where the 2018 ones were and we'll have new ones for 2019 I think.

Speaker 1: I don't think we're allowed to put glue or tack on the walls.

Speaker 2: *But we have pin boards and stuff.*

Speaker 1: *Yeah, we have pin boards but I don't trust that. Last year the pins would fall on me in my sleep, or they would fall on my bed and I'd roll over and stab myself. We are allowed to put them on our cupboards, though, because they're plastic like this. But because the walls have paint...*

Current C 01

You could get away with putting it over the drawers and the cupboards and stuff, but not directly on the walls because blu-tak and sticky-tape aren't allowed.

Past C 01

One of the things we did on this wall, and it looked absolutely fantastic, was we had little canvases, they were only nine by five, and all of the students painted these canvases and put whatever they wanted on them and then we stuck them all, and it was just beautiful, it was like this beautiful piece of artwork, but they don't actually want us putting anything on to the walls unless it's like a picture or something.

Staff A 01

A staff member similarly described these rules, highlighting a gap in priorities between the staff responsible for maintaining the buildings and those who support the students:

If we had money to do something in the dormitories to create a sense of belonging, it would be to have a wall with something that they can actually put whatever they want on it and make it their own while they're there, because I think our rooms are very sterile... they are allowed to use blu-tak on the exterior of the

cupboards, 'cause like it peels off easy. But they can't put anything on the brickwork...those walls are very bare if there's, if you can't put anything on them.

Staff A 01

Students described a wish to decorate shared spaces as well as their bedrooms, with frustration sometimes expressed that common areas reflected the values and taste of staff rather than the students who lived there:

Our house mothers don't like us changing it. They have a big go because they love their cushions. I don't know why they bring their own cushions...Like why house mums got to buy the cushion covers?

Current B 02

This relates back to previous sub theme of 'familiarity' in Chapter 5, with students feeling that the overall character of boarding houses does not reflect their own values and ideas. As with the example given by a past student of a space created 'by young people for young people', the sense of belonging does not necessarily come from the type of decoration or spatial characteristics used, but in knowing who made that decision and identifying with that person. This means that not every student needs input into designing and decorating every space, but that the spaces need to be instilled with a sense of having been created for them, by someone who understands and relates to them. While the intention of staff in this research seemed to be to help students by adding personal objects and 'homely' touches to shared spaces, this often further alienates students who either do not connect with those staff members or who have a different understanding of home and belonging altogether.

6.4.2 Creativity

Appreciation for creative activities was a common theme across the participant yarning. Students consistently described the ability for painting and other creative activities to help them relax, connect to cultural practices, and feel a sense of belonging:

Mostly it would be just the painting and just like carving, and stuff like that...because I think the girls would love making necklace out of the seeds and things and yeah.

Current A 01

Not all student participants of this research had access to their family history or traditional cultural knowledge, but one student explained that participating in art helped her to learn and feel connected:

I don't know. For me myself, I don't actually know my language or anything and I don't really know much about my culture. Just being able to- but just engaging with myself in learning. I quite like art, so that's why I like it...Painting an art wall is pretty good because you learn different paintings and artworks from different cultures around Australia, and know that... isn't just the one group of Indigenous people and it's all different groups out there...but just say within the boarding house there was a program around an art class and that was Indigenous? Or a table, I haven't really decided yet, or a wall. But you can just do dot painting, cultural drawings, storytelling, drawings.

Current E 01

Following on from this, the student explained that this type of creative space would embody a feeling of freedom:

And it's kind of just a space to really just be you.

Current E 01

This is consistent with other participant descriptions of creative activities that create a space of acceptance and ownership. For example:

Space to draw, paint, write. Like weaving, I don't know. Things that you...you know how you get those chalky wall things? Chalk board paint. Write in your little thoughts on the day. Like wisdoms and stuff. I don't know, like...creating your own space.

Past C 01

This further highlights the need for a 'creative space' (Past C 01) to not just be a display of art, but to require and encourage interaction from students. The importance of a two-way relationship between space and the occupant was further expanded upon by a staff participant, who described a collaborative student mural she organised for a boarding school dining room:

...the thing is the kids were helping draw it up. One of the kids designed it, I just edited it to make it proper and then they would come along doing bits, drawing on it. Okay, you draw this there. Even the pencil bit. Even though it was only doing the copying of the thing, I love when one kid says, "Are you going to keep that after?" And I'm thinking, "Well, I'm going to rub it all off?" No, we'll keep it. And then I'm saying to the kids, "You're painting this. You're painting it." And they're excited because they're going to be a part of it. There's that sense of belonging. We did this. It's not, oh, we've got this really nice wall. We did this wall. The 'we' word.

Staff B 01

This example shows the distinction between simply having 'a really nice wall', which could have been professionally outsourced, versus the sense of belonging facilitated by its design and saying 'we did this wall'. Here, the social function of participation has a different value to simply providing an artwork to the space.

While design decisions can help to increase sense of belonging and encourage creativity, the findings here suggest that active participation in a creative project can

create a space of belonging. In addition to providing the amenity for activities such as painting, necklace making, and wood carving that were described, the current data suggests that the entire interior environment should be considered an opportunity for creative input by students, in order to increase their feeling of acceptance and self-expression. In this way, it is proposed that participation in something creative will in itself create a belonging space. This would mean that the boarding school is not just a passive backdrop against which events and programming can take place, but rather is actively produced and defined by the student residents.

6.4.3 Legacy

The ability to leave a legacy was described by participants as something that could increase their sense of social connectedness with the built environment. The participants suggested that opportunities should be made for residents to leave a permanent legacy in the built environment. This could be physical, such as in the form of a carved mark on a material, or it could be social, such as contributing to a lasting tradition. Linking back to Chapter 4, students expressed a strong sense of attachment to elements of their boarding school environment on which they had left a permanent mark, or they knew someone who had. Even when students recalled overall negative boarding school experiences in which they felt they did not fit in, they described a sense of ownership and belonging to items and environments that retained a trace of their identity. One student recalled writing her name under her desk and then when later asked if there were any part of the boarding house that she would feel sad about if it no longer existed, replied *'literally just the desk'* (Current B 02). The value of this informal graffiti was also described by a student from another school:

Well, we have a bench and everyone writes their names. You just, underneath the desk, that's where people put their shoes or extra boxes or anything. So when new people come they go and they just see all the names everywhere.

Current C 01

While this mark making is usually not with staff permission (and perhaps it would not hold the same interest if it were), the participant also suggested ways for legacy leaving as a school endorsed activity:

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

The benefits of something like this are not limited to the individual students that participate but can potentially also impact upon the wider place identity, social knowledge, and intergenerational associations for future students.

6.5 Conclusion

The themes presented in this chapter highlighted the potential positive role of an increased spatial voice in creating a sense of belonging for Aboriginal students in boarding school. Participants in this project suggested a current lack of individual voice for students in boarding school settings. The student participants identified many ways that interior architecture could increase their sense of belonging by giving students a more active role within the design of space on a day-to-day basis. This suggests that the role for interior architecture here is not only in the initial environment provided by professionals, but largely in the ongoing design activity afforded to the students. The findings of this research extended these ways of thinking to the process of interior design within student housing. It is proposed that interior design can increase sense of belonging not only through strategic arrangement of the environment in the first place, but through the ongoing process of occupation by students. In this way, designing can be an act of showing who we are and how we want our worlds to be. This brings the findings in a full circle back to the idea of place identity, in that by allowing students to contribute to the fabric of boarding school architecture they can change the immediate and future identity of that place. Through design, they can have active roles in the creation of their sense of belonging.

Chapter 7. Third Space

Here joy and acceptance reign over anxiety and alienation.

(Oldenburg, 1989, p.32)

7.1 Introduction

The topics covered in the previous three chapters form a loop of how interior design can increase a sense of belonging for Aboriginal students living in boarding schools. This started with the perceived place identity of boarding schools by Aboriginal students, then, the social relationships facilitated by interior design were explored, and finally the idea that Aboriginal students should have more of a voice in the day-to-day design of their boarding schools, which could in turn have positive implications for the place identity. The current chapter, 'Third Space' is focused on the way that the design of boarding school could better support the transitions and cultural needs of Aboriginal students. To imagine this from the perspective of the students, this chapter deals with the questions of *'how do I have to act here?', 'where can I go to switch off from the things that worry me?', 'where does this place fit in relation to my work and personal life?', 'is it culturally safe for me here?'* This chapter is underpinned by third space theory, building further on the concepts introduced in Chapter 2 and developed in Chapter 3.

The two key themes of this chapter are *'Transition'* and *'Ownership'*. They describe the experiences and ideas that appear to underpin the ongoing tension in the views of participants as to whether or not there should be a space in boarding schools that is only for Aboriginal and Torres Strait Islander students. On the one hand, some participants thought that a special room should be provided for Aboriginal and Torres Strait Islander students to feel culturally safe, and that this is a realistic first step if wider cultural change is to occur. On the other hand, this was challenged by those who suggested that the whole environment should instead be designed to encapsulate cultural safety and belonging. This view reflected the perceived negative consequences of isolating Aboriginal students from the main student cohort, with some staff and students expressing concern that this would exacerbate existing experiences of racism and misunderstanding. Those who took this position also

expressed concern that this sort of separation would act as a 'band-aid' solution which would not allow larger issues in the school to be addressed at the source. Although there is no definitive answer about this, in all cases there was a clear need for Aboriginal students to have access to spaces that support their transitions and increase their sense of ownership within the boarding school. To provide some guidance on possible ways forward, this chapter uses third space theory to contextualise a variety of possible design responses.

Overall, the recommendation from the themes in this chapter is that the aim of planners should be to make the whole boarding school environment conducive to a sense of belonging for Aboriginal students. This may require a long-term process of transformation, so within this evolution there should be consideration for short-term access to culturally safe respite. Depending on the individual school culture, existing architecture, and student cohort dynamics, this may be best facilitated through a purposeful separate space.

7.2 Transition

In Oldenburg's idea of third place (1989), home and work are distinct spheres of life that must regularly be escaped from to a third, social place. This presents challenges for a boarding school, in which residents are always in the sphere of school. This theme describes the daily transitions navigated by students while away from home, which were suggested to be currently un-supported by the built environment of schools. This emerged in the data in two main ways, namely that the environment could help students firstly with '*Switching off*' and then with '*Switching between*'. While issues relating to the extreme contrast between home and school life for Aboriginal and Torres Strait Islander students were previously presented in 4.3, here the data shows challenges to sense of belonging as a result of having no contrast between school and the boarding environment. This indicates a potential role for interior design in the creation of space within which students can escape from school pressures (switch off), and transition more easily between the expectations of different activities (switch between).

7.2.1 Switching off

One of the main benefits of Oldenburg's 'great good places' are that they allow occupants to release themselves of their domestic and professional obligations. In doing so, they are free to engage in the business of socialisation and belonging- 'the effect of the third place is to raise participants' spirits' (Oldenburg, 1989, p. 55). In Oldenburg's words, this is a 'means of relieving stress', deprived of which urban life resembles a 'pressure cooker without its essential safety valve' (1989, p. 10). The participants of this research suggested that for any resident of a boarding school, a sense of belonging can be challenged by the lack of distinction between the main school campus and the boarding house. This led to difficulty in 'switching off' from school, in turn creating a feeling of the boarding house being a direct extension of an institution from which they could not escape- they are 'at school 24/7' (Current D 01):

...and everything we do here goes back to the school...and if something happens at school, it comes back here. You never really have an escape.

Current D 01

This was echoed by another student participant who expressed the need for relief from school rules:

Like from school, switch off the rules.

Current A 01

The ability to 'switch off' was further described by an Aboriginal staff participant as a fundamental characteristic of what a home is:

...I suppose home is when you switch off though...so that's the thing...I used to say to my kids like, stay at the library, that way you go home, switch off...because you're still in that mode...You get to actually rest when you get home.

Staff B 01

This explanation suggests that 'switching off' is not only a mental process, but can be spatially experienced, in this case by studying in the library after school to enable a separation of work from home. The impact of not having this separation between the academic and personal spheres of life was explained:

Speaker 1: It alters your behaviour a lot. If you were to go out, you'd have to think about the circumstances about what you're doing and if it gets back to the school. So, a lot of that... sometimes you just have to always rethink everything that you do.

Speaker 2: I feel like in a sense, you have to grow up a lot faster because if you go out and make a mistake or whatever... if you were at home, you could make a mistake and you could talk with your parents. But if you make a mistake, it goes straight back to the school.

Speaker 1: It's such a long process. It's a lot harsher.

Speaker 2: Yeah. And then once people find out 'cause people talk about it...where if it was at home, you talk about it but-

Speaker 1: It's more private. It's not private here. Like something happens...So, one of us gets in trouble, everyone will find out.

Current D 01

This description goes beyond the need for privacy, suggesting a deeper sense of self curation in response to conditions that see a blurring of the boundaries between school and the boarding house. The need for increased distinction between these two places to provide students with a mental break was described as follows:

I actually think the schools and the boarding house need to be separate because you need to have that transition, that break between the two...

Staff B 01

These descriptions suggest that the benefits of 'switching off' could be facilitated by spatial cues, which in these examples are in the movement between geographically separate buildings. A lack of symbolic and geographic boundary between school and the boarding house may create challenges for all residents, not just Aboriginal and Torres Strait Islander students.

In addition to the challenge of being constantly connected to school and its rules and expectations, the described lack of 'off' time requires students for whom Standard Australian English is not a first language to expend sustained mental energy. The concern about the impact of this on student wellbeing was expressed by a staff participant:

...if you think about when you travel, and you go overseas and you are in a country with a different language, how exhausting that is, trying to understand. It just requires so much energy...So if you think that you're not allowed to use your own language, if you have other people who can speak it, where unfortunately I've had some children who have had no other speakers, and it's been tough...there has to be a time when you're allowed to go back into what is comfortable...that you can have some relief from this onslaught of leaning and your brain just being fried...I think you just get burned out, I think it's just exhausting, constantly trying to be on, in that mode.

Staff D 01

In response to this 'onslaught of learning', student participants of this research described the ways in which they improvised strategies for rest and relief. In some cases, this was by finding space to be alone:

I just go out and...before in year nine and stuff when I wanted to get out I would just go and chill out in the great court, just somewhere with grass or something. Just put music in and relax and get all my thoughts out.

Current E 01

Stories such as this suggest there is a larger purpose and requirement of a space of social separation other than simply the basic function of visual and acoustic privacy. While anyone living in crowded and high-density settings may experience issues of stress and frustration, these descriptions indicate that Aboriginal and Torres Strait Islander students also require relief from their need to code-switch (or translanguaging, as discussed in 2.4.3) while at school. Here, the student used a combination of existing outdoor space; 'somewhere with grass', and an improvised sensory barrier, 'just put music in', to create her own space of retreat. These self-imposed barriers indicated a different sort of privacy to that which may be provided for the purposes of sleeping, undressing, or making a personal phone call. Instead it is an example of social isolation in which the student is alone, but not necessarily lonely, in order to create a space in which to switch off from school pressures.

In other cases, student participants described accessing this relief by forming strong peer groups of fellow Aboriginal students (previously described in 5.2.1). For example:

Speaker 2: We all drew together like that because then we could all speak like-

Speaker 3: This.

Speaker 2: Normally. Laugh about this and that, but we had to do it secretly.

Past C 01

In this case, the participants accessed a break from the school environment by gathering and speaking 'normally'. As reflected in the explanation above that 'we had to do it secretly', unfortunately it is also common for students to be told 'not to speak

language at school' (O'Bryan, 2016, p. 175). This example encapsulates the common theme emerging both from this project and in the literature that Aboriginal students perceive the need to gather and speak in (their home) language as essential to their sense of belonging while away at school. This understanding suggests that while there should be access to spaces of alone-ness, it is not sufficient for this to be the only way in which Aboriginal and Torres Strait Islander students can 'switch off'. Social spaces should also be provided in which students can express themselves without formality or self-curation.

The participant voices here suggest that residents of boarding schools are often completely removed from home (first place) while being constrained full time to school (second place). As a result, they are unable to access the benefits of a purely social gathering space (third place). In response, Oldenburg proposes that:

The third place accommodates people only when they are released from their responsibilities elsewhere. The basic institutions- home, work, school- make prior claims that cannot be ignored. Third Places must stand ready to serve people's needs for sociality and relaxation in the intervals before, between, and after their mandatory appearances elsewhere.

(Oldenburg, 1989, p.32)

This description encapsulates the need for all boarding school residents to, at times, be 'released' from the responsibilities of school to access 'sociality and relaxation'. For Aboriginal and Torres Strait Islander students, these obligations may also include the maintenance of language and behaviour codes that requires them to conform to the dominant school culture, and from which a relief can only be accessed by being alone or with other Aboriginal and Torres Strait Islander people. This creates an additional layer of consideration in the design of boarding schools that allow all students to access a sense of rest that is not dependant on social isolation.

7.2.2 Switching between

This research suggests that boarding schools should include more intermediate space between areas that have different purposes and expectations. This responds

to the current lack of distinction between first and second place for students on a daily basis, which can make it difficult to mentally transition between the two. Participants proposed ways of using space to switch between different modes which, in turn, was suggested as being helpful in creating a feeling that there is a 'break' from the various pressures and problems associated with each environment. An environmental 'palate cleanser' was proposed as a possible way of thinking about this:

I just think in terms of switching off, you leave work and you've gotta drive home, which allows you to have that space to turn off before you hit home and you deal with your home issues. ... like a palette cleanser or something ... it's that whole, it's code-switching, but a transition period.

Staff B 01

In this case, as with the earlier example of a library, the daily commute between work and home is understood as a form of spatial transition that helps us to 'switch off' from work. Here the 'switch' is facilitated through the physical change in scenery, the time it takes to drive, and the participant's engagement in an activity that is neither home nor work. It could be beneficial to locate student residences further away from the main school campus. In this case, geographic separation could allow students to construct the two sites as having distinctly separate place identities, and by extension be more symbolically aligned with the multiple codes and identities being exchanged between them.

A 'pub' was also used as an example of the way adults use space to make this transition between different environments:

...when I was working out at [name of school], which is really rough and we were having really bad times, I'd actually go to the pub before I went home and...even my language changed...my language was sort of, coming down, at the pub and then by the time I got home, my palette was cleared.

Staff B 01

It is possible that this decompression, or 'coming down', could be created for students as an embedded physical feature of the school environment. The process of mentally transitioning, as facilitated by a spatial experience, could be incorporated into existing environments. For example, the strategic design of immersive wayfinding (pathways, landscaping, gardens that direct students) that extend the thresholds between school and accommodation could encourage a reflective period of transition for occupants.

A permanent room could also be used for this function and be visited in between other activities. In their proposals for future boarding school designs, some participants described a need for a distinct cultural room for Aboriginal and Torres Strait Islander students. This room typically included specific amenities, such as informal seating, a fireplace, multiple zones for different activities, cooking facilities, and access to nature. The ability for this room to be a transitional space was described by a staff member:

They transition through this and they go back to the classroom, they come back, it's like...it's their spot.

Staff C 01

This is in line with an understanding of 'homeness as an organising centre around which the daily rhythms of life revolve (Seamon, 1979). Third places can also have this quality: 'though a radically different kind of setting from the home, the third place is remarkably similar to a good home in the psychological comfort and support that it extends' (Oldenburg, 1989, p. 42). As the following student described it, the space should 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

The transition space described by participants above can be constructed as the 'third space' that bridges residential life (first space) and school life (second space). This description also aligns with the role of third places as somewhere that:

...one may go alone at any time of the day or evening with assurance that acquaintances will be there. To have such a place available whenever the demons of loneliness or boredom strike or when the pressures and frustrations of the day call for relaxation amid good company is a powerful resource.

(Oldenburg, 1989, p. 32)

The voices of the participants in this research suggest that such a space does not currently exist for Aboriginal and Torres Strait Islander students in boarding schools. As discussed in Chapter 5, there are often very abrupt boundaries between private and public spaces within the interior design of boarding schools. Additionally, it was sometimes reported that students felt overly exposed or scrutinised while in communal spaces:

...kinda feels like you're always being watched.

Current E 01

As one staff participant described, the activities provided in common spaces, such as a pool table, were often taken up by a few regular users, but not everyone:

...the same kids use it, but not everyone uses it, does that make sense?

Staff A 01

In response, designers and school staff should be mindful of how the design of common spaces may unintentionally serve to strengthen sense of belonging for those already socially confident or in the dominant cultural group.

Other participants described the challenge of finding a place to have quality time with friends. This involved appropriation of existing transitional spaces for social purposes:

Speaker 1: *It's like, I don't know, you have people in your room so like you've gotta find somewhere else here. But if you come down here (the common room) you hear like everything, like the doors, dinner-*

Speaker 2: *-and you can't be like, vulnerable, you know?*

Speaker 1: *If you're in like a staircase, you've got to stop your conversation 'cause people will like walk up, and you just don't know.*

Speaker 5: *And that's usually where it ends up with the staircase because everyone's like, over it.*

Speaker 2: *If you're talking with your friend upstairs and someone walks past, you'll stop your conversation.*

Current F 01

The use of the staircase as an intermediate social space could be seen as a way of improvising a 'third space' at a smaller scale within a building. As third *places* are distinct locations away from home or school, in this way there is potential for third *spaces* to exist within individual buildings. By activating thresholds, such as staircases for social use, the extremes of public and private settings can be transitioned through more gently, and with greater opportunity for spontaneous social interaction along the way. However, this does not address the issue raised by these participants that they had no place to be 'vulnerable' together.

In summary, interior design can be used to help students to 'switch off' from and 'switch between' the various transitions between language, behaviour, and space while living away from home. At the large planning scale, therefore, those designing boarding schools should be mindful of having a different place identity compared to the main school campus, with increased transitional space between the two. This can also be extended to the treatment of interior spaces within the residential environment, which should reflect a variety of activities, have distinct characteristics from one

another and be connected by informal social thresholds. This has the potential to help students navigate more effectively between different spaces, activities, and codes, and to access increased rest from this mental and behavioural dexterity.

7.3 Ownership

In response to experiences of racism and misunderstanding within the boarding school, many participants proposed the need for a dedicated space of increased cultural safety and ownership. The findings described above relate to the use of third space as a mental break between school and boarding environments and may be, to some extent, beneficial for all residents of various forms of student housing. The following themes relate experiences of the Aboriginal student participants, and the spatial responses that were perceived by them as able to help navigate this.

7.3.1 Cultural safety

Student participants described the need for a culturally safe space within the boarding house. One of the reasons for this is so they can escape from ongoing justification of their Aboriginal identity to their non-Aboriginal peers. This was explained as a key difference to the sense of belonging they felt at home, where their identity was inherently known and accepted in the community:

Speaker 4: I came from a place where everyone knew I was Aboriginal, everyone knew my family. I didn't ever have to justify.

Speaker 3: Yeah, you didn't have to explain it.

Speaker 4: ...I never had to justify my identify before and then all of a sudden every day, every week.

Speaker 1: Same, that's exactly my story.

Past C 01

There was a frustration amongst student participants that non-Aboriginal school community members assume the student's identity and cultural knowledge to be a representation for all Aboriginal and Torres Strait Islander people. This assumption

was disputed by the student participants as being unfair, not only because they are children who are still learning their own culture, but because they are also not familiar with the local culture that was being referred to:

Speaker 3: *Because you're kids really.*

Speaker 4: *We're kids and we're learning ...*

Speaker 2: *Especially coming from a community. You only know stuff from your community. You can't speak on behalf of everyone else when they ask you about things down here. Well, I'm not from here. I have no right to talk about the people from here. If it had something to do with the Kimberley, then yeah.*

Past C 01

Students also reported the unexpected nature of their experiences of interpersonal racism and name calling from peers, and the emotional toll of managing these interactions:

No one prepared you for it, no one warned you that was going to happen. Like the questions that came along.

Past C 01

What I would change about this school is the respect, because people do go, "Nigger" and stuff like that...Yeah, boarders...I have to stop them from making a joke out of it...That's what I would change. It just makes me angry.

Current E 01

Speaker 3: *...like just having to deal with being asked, "Oh, how come you're not as dark as [name of friend] or what."*

Speaker 5: *Having somebody say, "that can't be your cousin though, she's not the same colour as you"...it's just like I don't have to prove myself. I know my family.*

Speaker 4: *Yeah, just because of the colour of my skin.*

Speaker 5: *Having to explain to somebody, it's just so tiring.*

Past C 01

I remember when 'Australia' (the movie) came out and one of my friends was like, "I'm going to call you Milky" I was like, "No". She was like, "Yeah, Milky." I was like, "You realize that movie is based in the 40's.", that's not a good term...That's not a good term to say to somebody.

Past C 01

In response to the ongoing pressure of these negative experiences, some student groups described the advantage of a space in which Aboriginal and Torres Strait Islander students have default ownership:

I feel like if it's an Indigenous room you'd feel like more of a sense of belonging because you feel like you can just go over there and not feel like... it's more like when you don't have to put up an act or change to fit in or whatever...just having somewhere you can connect to that makes you feel that you belong...So, if we had a room where you felt safe, felt accepted and belong. I feel like it just needs to have a home feel. The vibe of welcome-ness and easy-ness. Something that's light and cool. Something that's calming.

Current D 01

The characteristics of this place were typically described as needing to be restful, soothing, and calm and with its primary role to be a mechanism for respite within the boarding house, for example:

It would be really nice if we had a space of our own, so instead of having to come to the library, that we had our own little room somewhere. Don't you reckon? Where we could just curl up and go to sleep on the couch whenever we feel like it.

Current F 01

For some, the need for this space to be separate from the mainstream cohort was clearly articulated. This was described in terms of cultural safety, where students don't feel the need to act a certain way:

Like a culturally safe place...When we were at [school name] at least there wasn't a place in the boarding house or at the school that was just ours...It would give you a space to be yourself.

Past B 01

Despite the perceived benefits of a room such as this, there were also challenges reported in gaining the necessary support for establishing it. A student participant expressed that for a culturally safe space to be effective, it would need to be advocated for by school leadership at all levels:

Speaker 1: Including all the people who work under them, including the boarding house students. Need to understand the importance of why we have to have that space.

Speaker 2: Just for ourselves. Not to be compared to everyone else.

Speaker 1: Yeah, "they're being exclusive".

Speaker 3: *They need to turn around and say, "these are the reasons why they have that space".*

Speaker 2: *'Cause that's one of things to make the students feel comfortable in that space as well, is knowing that you can feel comfortable to go there.*

Past C 01

However, resistance to this idea from school leadership was described by a staff member who has advocated both within secondary schools and in tertiary student housing for this type of space:

It's division. It's giving them something that everyone else hasn't got. Those issues come up because what happens in the school was "why do they get a room?". When they came here, all the RA's and the non-Aboriginal kids were saying, "why do they get a room? Why do they get the special treatment?" So I had to fight hard. In all those, both spaces, to create space within space. Which is the third space.

Staff C 01

Relating back to the idea that 'you can't win either way' (Chapter 5), students described a concern that their non-Aboriginal peers would not understand the need for a culturally safe space:

... "why do the Aboriginal people always sit with each other? Why won't they sit with us?" Because you don't talk like we do. It's like, you don't get it.

Past C 01

While most student participants in this research were supportive of a dedicated cultural room, opposition arose amongst students in schools where there was either a relatively very small or very large number of Aboriginal students compared to the

whole boarding school population. Two student participants, from a boarding school in which there were only three Aboriginal students and nearly two hundred total boarders, were wary of further isolating themselves from the rest of the cohort:

Speaker 1: ...having an area for just the Indigenous girls, there's not a lot of us, so that makes it different... that's where I struggle because I can't really...like, there's only three of us...because there's a really small amount and it's picking it out from the group, that's how I feel.

Current E 01

The other student in this yarn went on to explain that although there was perceived value in what this space could offer them, a different approach may be more appropriate for their situation:

Speaker 2: So even if we were to get an area, it's kind of like...well, it would be nice to have an area, but just for the little amount of us, I don't think it should be done. Because it would kind of go to waste. But I do think we should have something...I don't really like to be cooped up in a room. I would rather like a space outside...If I felt overwhelmed or feel a bit out of place, I can always go outside or go for a walk. For me in that perspective, I don't really need a centre.

Current E 01

This student's use of easily accessible outdoor spaces as a way of self-managing feelings of being 'cooped up' and 'overwhelmed' suggests a strong need for a sense of rest and escape. However, the way that this need can be accommodated will vary in different situations and according to different personality types - which should be considered in the design of future boarding schools. On the other hand, participants at a school where Aboriginal and Torres Strait Islander students were the majority group in the boarding house were similarly concerned that a separate space would cause unfair exclusion:

Here there's lots of Aboriginal students and there's not many non-Indigenous...and it would be unfair if they had maybe one or two people and then they would be sitting there doing nothing but everyone else is out there doing stuff.

Current C 01

This example similarly highlights the variety that exists between the dynamics of different cohorts within boarding schools, and the importance of being sensitive to the varied needs of each to ensure that all students are included.

7.3.2 Cultural exchange

It is in this third space, the 'in between spaces', that new signs of identity, innovative collaborations (between cultures) and contestations emerge.

(Dudgeon & Fielder, 2006, p. 405)

Many student participants described a wish to share their culture and to learn about the cultures of other students. For example, the following participant described the need for increased recognition of cultural diversity within the Aboriginal and Torres Strait Islander student cohort:

In a way, we're already...we're seen as one culture and not like, our tribes recognized as well. We're just seen as Nyoongar and that's not exactly a bad thing 'cause we're on their land and stuff. But it would be nice to express your own culture in a way.

Current D 01

As suggested through this quote, the idea that Aboriginal and Torres Strait Islander boarders are viewed as only 'one culture' rather than many diverse groups requires increased sharing and learning on this topic. The ability to have cultural exchange was proposed to be best facilitated by an increased feeling of student ownership and

freedom of expression within the boarding house. Participants of this research were interested in the experiences of international exchange students at their school, to whom they felt they could relate in some ways:

Speaker 1: Even from other cultures, I know a lot of Chinese girls and stuff. Even if they had dinner stuff or oriental things just to make everyone feel like-

Speaker 2: Yeah oh definitely feel even, there's four of them here and they all stick together 'cause they have nowhere else to go. Yeah international students.

Speaker 3: If we just have a space that's separate. It's all diverse culture.

Speaker 2: I guess we could also relate to them because they're coming to like, culture shock. We came to culture shock.

Current D 01

It was explained that a specific cultural space would allow students to increase their understanding of histories and stories in general and within the Aboriginal and Torres Strait Islander student cohort:

Say if there's a whole bunch of Indigenous girls and they don't actually interact with each other, it kind of allows interactions with one another and get to know each other better and do activities together. And it also allows you to learn each other's backgrounds and stories and stuff.

Current E 01

The inclusion of multiple cultures and perspectives in the participants' consideration of how to create sense of belonging reflects a high level of awareness for the potential variety of student experience.

7.3.3 Opening up space

It is vital to struggle to open up and celebrate third spaces in our everyday lives within institutions.

(Dudgeon & Fielder, 2006, p. 405)

In every participating school in this research there was some form of cultural program for supporting Aboriginal and Torres Strait Islander students. In some cases, this involved a full-time dedicated staff member or an Elder in Residence. For others, this was a volunteer staff member from the school, or inclusion of residents in initiatives from external organisations. In all cases, this program did not have a physical presence in the boarding school itself, or a dedicated meeting place distinct from a staff member's office. These offices were typically in public facing administration buildings, with the arrangement of waiting rooms, corridors, and rooms communicating a high level of formality, which (as outlined in Chapter 4) was a spatial characteristic found to challenge a sense of belonging for student participants in this research. This arrangement also reflects the merging of academic and private spheres for students, for whom challenges in the classroom may be intertwined with lack of access to support structures that help with personal struggles.

Some staff participants described difficulty in accessing space to accommodate the support programs they had been assigned, attributing this to a lack of understanding from senior school administration in how the space would be used and valued. They described the impact of meeting students in small and unconventional spaces, suggesting that in some cases this helped bond them to the students through the forced intimacy of the small area:

Now, the cupboard of the gym was a black room, which was just literally for storing balls. It had no windows. It had no heating or cooling. It was, I would say looking over my seven years at [school name], it was the most effective room in creating a space where we actually gathered as a group. When we shut that door we were in a room. It was so intimate...there were 25 students in the program at that time and they

all said that was their favourite room. Now why that was their favourite room was because it forced us physically, we were close together. We were literally sitting on top of each other. When we shut the door, if a boy was depressed, we'd turn the light out and it was black. So, it gave you respite from the world. It gave us an escape from this white world where I'm drowning. There's racism and stresses and home sickness. It became a really nurturing space. So, there was nothing beautiful about that room. It was a black box.

Staff C 01

As described above, the social benefits of this space were not connected to the aesthetics or structural detail of the room, but in the sensory and symbolic perception of it by students:

It didn't matter where that was, whether it was an old laundry, whether it was a cupboard off the gym, for me it was about the space and what you can build.

Staff C 01

In this example the first (perceived) space is in the objective perception of the room as dark, small and crowded, the second (conceived) space is in the students' interpretation of this as safe, intimate, and separate to the rest of the world. The third (lived) space is the resulting experience of respite and belonging:

That room was really an emotional release for them to actually feel listened to, heard, seen.

Staff C 01

Despite this success, the difficulty in securing permanent and dedicated space reflects a broader lack of perceived legitimacy for the program:

It was a foreign concept to create. Why would you wanna have a room when they...they've got classrooms, they've got the yard...why would you wanna have a separate room, which for a lot of people is about...it's the opposite of integration, opposite of assimilation, it's the opposite of all those things. It's the ghetto. It's separation.

Staff C 01

In line with this explanation, some staff participants had the view that there should be no special treatment for Aboriginal and Torres Strait Islander students, so that there would be 'no difference':

We've worked to make it a very holistic experience for everyone. Make it a great place to be, where it's a very positive environment. Everyone's embraced that. So there's no difference. I don't think anymore, there's the, "They're the Indigenous girls," or "You've got to treat them differently." It's like, no, no, no. We actually treat people the same. We've got the same expectations, the same rewards, the same positive experiences.

Staff F 01

The philosophy of this approach was described as being to 'not make any specific group feel alienated' (Staff F 01), however if the 'same expectations' for all students

are negatively impacting one group, as the student participant voices here suggest, the environment is not likely to be equally 'positive' for all students. The philosophical position that all students should be treated the same is incongruent with the idea that equity and equality are different, and that students will have different needs for achieving and measuring positive outcomes.

The staff member further described that this approach impacts upon the selection criteria for future students, meaning that they will need to have a high level of resilience and support:

So the girls have got to be tough...you definitely need, that's one thing when we go and do the scholarship interviews, you really need parent support. Even more than that, especially for some of the remote communities, you need the community support.

Staff F 01

This places the responsibility for adapting to the institutional environment with the students, rather than accommodating for different needs within the school. It has been proposed that 'it is insufficient for boarding schools to provide Aboriginal and Torres Strait Islander students with scholarships for the purpose of social justice, but then not to provide a culturally safe environment for those students' (Macdonald et al, 2018, p. 207). The present data suggests that in many cases this safety will require a shift in school culture.

Some staff participants offered descriptions of scenarios where this cultural shift could or has been achieved within individual school settings. For example, one staff member proposed to 'skip' the use of a separate room and instead to focus on designing whole environments that provide an 'ideal living situation' (Staff B 01). She argued that the need for a separate room was indicative of larger issues that should be addressed at the source:

It's a matter of going why are you needing that room? If that room, you're needing that because you're just not feeling connected to people then obviously there's an issue there. If you're needing it because you're not

feeling at home then that means the space around you is not making you feel at home. So while the boarding houses are not providing that, yeah I get that. But what we want to do is actually make the whole boarding house so we don't need that. But the thing is, at the same time, if you provide that room then people aren't going to deal with this wider problem.

Staff B 01

The same participant envisaged a 'big community house' where 'everyone's a part of the community':

Aboriginal culture should be through everywhere...so it doesn't have to just have that tiny space where we've got our pictures...it's everybody's space. So that way everyone can use it...this is a space where you can connect back to land...So that way if you can't psychically get out to the bush at least you've got this space you can go relax, this sort of thing.

Staff B 01

However, this vision was challenged by a past student participant who, when asked if a whole boarding school could be designed to embody a culturally safe experience, commented that:

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.

This statement challenges the view that all students should be treated the same in the boarding school by pointing out that cultural safety is not experienced equally. These views suggest that there is a common wish by staff that all students feel comfortable and included in the main boarding school without the need for a separate room to which Aboriginal and Torres Strait Islander students can retreat. However, a 'one size fits all' approach that is based on a non-Aboriginal worldview will not necessarily provide this outcome, despite the underlying intention of equality.

An example of where a program has used third space principles to increase the cultural safety of a whole accommodation can be seen in the progression of the spatial occupation at a tertiary level for student accommodation. In this case, the program coordinator first appropriated her office into a dedicated meeting space within the halls of residence. This was then grown to be a larger study and lounge room for Aboriginal and Torres Strait Islander students, underpinned by the goals of developing '*identity, community, and belonging*' (Staff C 01). The high levels of engagement and retention achieved for students by this program justified further expansion which has resulted in the recent completion of a dedicated residential building. The program coordinator described the physical and social transformation of the program as having gone from a 'back cupboard' to a 'fishbowl':

It's very public to everyone else so we're not...we're in a space in this program...that we don't have to hide them anymore. We don't have to put them in a back cupboard to build the community because it's already built. We have such a strong sense of community and belonging, culture and identity that we can now take the risk of going into this fishbowl for people to see them...we're not ashamed to be here.

Staff C 01

It was also suggested that persistence with the original program has resulted in it becoming 'normalised' within the college, providing students with some escape:

They don't get people who don't want to sit with them or don't say things to them or call them racist terms...it has become a safe college. Because we're so verbally...all the staff, every function, there's Indigenous things happening. It becomes normalized.

Staff C 01

Given the success of this strategy, it would be worthy for future research to investigate how this model might be adopted more widely. Further, it would be useful to investigate the degree to which this could be translated to secondary school settings, noting that the needs of school age students will be different to those at university.

It is also important to consider that while most participants in this research spoke from experience of being in schools that were in the majority non-Aboriginal, the value of a third space is not limited to these settings. This was highlighted by student and staff participants from a remote all-Aboriginal boarding school in which the need for spaces of relief, cultural expression, and emotional de-compression were similarly emphasised:

We can see there's other girls who are very similar to that, that just blow up, at risk of being sent home for behaviour that's completely avoidable if they just get some downtime. 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.

Staff A 01

In this setting a separate Aboriginal student space was understandably not raised in yarning with the student participants in the same way as in other schools, there were many suggestions for ways of accessing more casual situations, and mentally escaping from a feeling of being overly surveyed and controlled:

I don't know if you've noticed, but the students tend to sit in bedrooms, and don't really use the common

space at all... they don't usually want to come out and spend time in this space, which tells me that there's no ownership, that there's no...whatever we're doing, it's not engaging them.

Staff A 01

As described in Chapter 5, participants wanted the opportunity to form and maintain strong connections with other Aboriginal students. However, participants from this school site indicated this alone did guarantee a culturally safe environment. The efforts of Aboriginal students to maintain close friendship groups amongst themselves in resistance to the dominant cultural environment were also described by participants of this remote boarding school:

...we used to always have girls sleeping over in other rooms, and it is completely natural and normal for them to have five or six girls in one room, three in a bed is not a problem.

Staff A 01

Staff participants at this location explained that students typically spent their free time in groups either outside or in their bedrooms where direct visual supervision was difficult. This aligns with the common theme that emerged from the contribution of many participants, namely that students feel a need for increased access to informal, uncensored space in which they are relieved from the social obligations of the dominant school culture. It is possible that interior design could be used to indicate this relaxation in some places and promote less regulated activities.

7.3.4 Fireplace as third space

Ritualised spatial activity around a central fire pit was frequently described by participants of this research as a way of using the physical environment to create a sense of belonging. Every student participant group discussed an appreciation for their existing access to a fire pit, or a desire to have one. Often this was the first idea raised within the group:

Fire pit.

Current F 01

I think the fireplace is a cool idea as well.

Current B 02

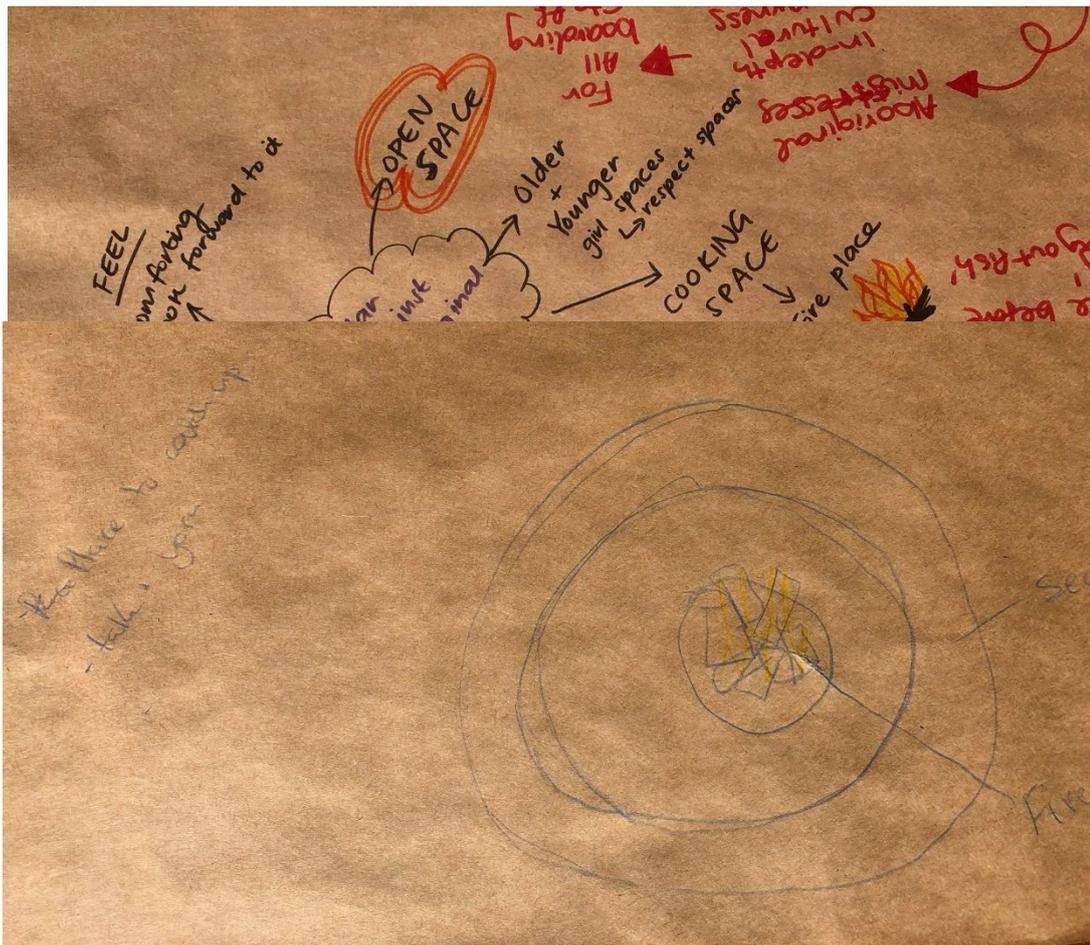
I feel like a small thing would be probably like a fireplace.

Current D 01

I know! Fireplace. Fireplace is real important, hey.

Past C 01

Fire settings also featured regularly in student drawings, for example:



As shown in the example of Figure 15, fire was often a component included in student participants' mental maps of what a belonging space should include. This student described the significance of this in more detail:

Open space, fireplace would be good. Just to sit around the fire. Just to sit around and yarn. Fire. Big tick. Must have...Takes you back to country. You can kind of pretend that you're not so worried by all the buildings. Like, are we out in the country, we're camping...

Past C 01

Despite the consensus from the students only a small number of boarding schools were described as having an outdoor fire pit, and although one school reported plans to install one, many did not. For the schools that did have a firepit, the use was limited to special occasions at the discretion of the staff. Where students did have access to a fire setting at boarding school it was usually limited to an isolated outdoor area, which did not fit in with the main place identity of the boarding house. For example, they were often part of a temporary event - set up outside for only for a special occasion or treat and then dismantled. One exception to this was at the remote boarding school for Aboriginal students, which regularly allowed students to make and

Figure 16: Circular seating design around a fire pit

gather around a fire in a courtyard to which the staff office had a direct sight line. In all cases, this access was limited by seasonal fire restrictions. Permanent fire pit settings were, therefore, described as un-used for much of the school year.

When proposing future designs, students commonly included a fireplace within a central common area or organised the entire design around a central outdoor courtyard with a fire pit. Even though fire is usually an outdoor experience, students explained that the difference in climate means that translation into an indoor setting could be beneficial in creating a sense of familiarity and belonging. One student

suggested a way that the familiar and calming experience of sitting around a fire should be adapted to the Perth climate:

We want to feel warm and not be outside because we're in cold Country. That's what it is though. 'Cause when you're home, you don't spend time indoors. When you're here though, you're like...can't go out. Too cold. It's also nice...You know what it is? It's being able to sit and watch the rain when it's raining. For us rain is warm. And we sit on the outside and we watch the rain. But here rain is cold, and so you go inside but the windows aren't big enough that you can sit and watch the rain. We can design a glass tube with a fireplace. And beanbags all around.

Past C 01

A permanent fire setting, whether inside or outside, was further described:

They bring their fireplace with them, it's transportable. They bring it out and everyone goes and finds sticks...You know how they have the ones in the ground that would be cool...It would be like a circle, metal thing, and then another thing outside that would be over the surface of the ground...If you had little logs around the fire that we could sit on, because right now we're just sitting on chairs and stuff like that. But not proper chairs though, the little wooden benches.

Current C 01

Students described ideal settings as permanent, informal, connected to the outdoors, protected from cold weather, and with flexible seating. Fire settings were described as closely connected with storytelling, and as such should allow for intimate gatherings with the ability to host guests:

...get Elders to come in and tell them about stories and things... 'ladies come in and tell stories of the past, and it was really cool.

Current E 01

I think it's good just to get people in a group and have a chat. What helped me when I was like year 7, year 8, was just sitting back and telling stories.

Past A 01

The value of a central fire as a way of defining informal social settings suggests that this function should not completely disappear when seasonal bans are in place. Rather, the symbolic value of a fireplace may be adapted to situations that can continue throughout the year. For example, one staff member proposed that a firepit be imitated for the design of a communal charging hub to help reduce social isolation:

It would be great to have a charging hub. It sounds ridiculous, but that's why they're in their bedrooms, is because they've got the power point, and so everything is around the power point, even when we go on camp, it all revolves around the power point...For example if we create...just have a charging area with nice chairs that they can sit back in, pull it out and plug it in and then just recline and enjoy sitting in close proximity to others. That would make a remarkable difference.

Staff A 01

This idea builds on the existing association between fire, storytelling, and sense of belonging that was described by students, while also being responsive to the need for digital connectedness with friends and family outside of the boarding house.

Fire was also described as a type of fixed social setting that could perform the function of the previously described 'palette cleanser'. This was described in terms of a 'mentality shift' that between the end of the school day and the boarding house:

Yeah, I think it's one of these mentality shifts...It's that mind shift...So therefore, when you're a boarding student, what shift do you go to because you're still in the constraints of that school environment, even to the constraints that you can't leave the boarding house without wearing shoes...the schools and the boarding house need to be separate because you need to have that transition, that break between the two...I suppose a nice way maybe of doing that is you go from school, you go to your fire pit, have your afternoon tea there. Then you go home to your boarding house home. It's that transition...

Staff B 01

Worth noting in this description is the terminology used with respect to the boarding school, namely 'boarding house home' as a distinction from 'real home', which is not replaced. As described at the beginning of Chapter 4, 'home is home' and should not be replaced. However, there is a role for the built environment in creating a comfortable environment that is distinct from school. In this case through the ritualised occupation of the fire setting, which is an example of how the combination of a social ritual with a fixed environmental cue could provide a mental separation of first (school) and second (boarding) space. The fixed cue is the central fireplace and the social ritual is afternoon tea. These examples highlight that the consideration of fire in design should be deeper than simply providing a pit or designated location.

7.4 Conclusion

This chapter illustrated that there is a strong case to be made for the consideration of third space theory in the design of boarding schools, particularly in accommodating Aboriginal students. Hickman (2013) reflects that 'despite growing academic and policy interest in social interaction, our understanding of it within the context of the

third places is relatively limited' (p. 224). This is also true in the application of third spaces to boarding school settings for Aboriginal students, in which there are many manifestations of third space theory occurring simultaneously. These ways of understanding the presentation and purpose of third space are useful in proposing a way forward for the design of boarding schools that help Aboriginal students feel a sense of belonging.

Chapter 8. Bringing it all together with a feedback model

This is how we lay for ourselves part of the foundation of language, and meaning, and belonging; through call and response, through watching and copying.

(Bowditch, 2019, p. 221)

8.1 Introduction

Having presented findings from the participant data in the previous four chapters, this chapter brings everything together within a broader theoretical context. Chapters 4, 5, 6, and 7 presented participant experiences in relation to four major themes: 'Place Identity' (relation of the self with place), 'Social Atlas' (relation of the self with others), 'Spatial Voice' (role of self in the design of space), and 'Third space' (space to be yourself). Each major theme correlated with a different dimension or scale of design and interacted in a different way to the role of 'self'. To tie these together, the first section of this chapter discusses the intersection of self with place and others, this is followed by how the role of 'self' is critical in the design of space for occupants to feel they can be themselves. Next, the themes from all chapters are considered together in the creation of a theoretical model for designing sense of belonging - 'the feedback model for belonging'. This correlates with a resource for designers and school planners (Appendix A). The unexpected value of the brown paper roll as a participatory research tool is then reflected upon with suggestions for future improvement, leading to the conclusion of the chapter.

8.2 Acknowledged limitations of the study

Firstly, there are several acknowledged limitations to the findings of this research which are presented here under four main categories: the outsider status of the researcher, the depth of engagement, the level of transferability, and the organisation of data. It should be noted that while these are acknowledged limitations to the project, these factors are mostly due to intentional methodological choices within the study, or factors outside the researcher's control.

8.2.1 Outsider status of the researcher

The first limitation is in the researcher's identity as a non-Aboriginal person doing research with Aboriginal young people. To address this, effort was always made to conduct the interviews in an environment familiar to the participants and in an informal way. However, it remains an important consideration that in a discussion of belonging with Aboriginal young people led by a non-Aboriginal researcher with limited to no familiarity with the participants home experiences and languages, this discussion was by default within a set of conventions and expectations to which the participants may not feel they belonged. This is somewhat alleviated by the advanced translanguaging (or code-switching) of many Aboriginal and Torres Strait Islander people (Farley et al., 2019). This became apparent in some interviews when members of the group would transition to Aboriginal English while telling a story and then transition back to explain some parts to the researcher, relating elements of a story to the research topic that may not have otherwise been understood. In this way, the success of this method relied heavily on the intelligence and empathy of the students. If this had not been the case, a much higher degree of community familiarity and language knowledge would likely be needed by the researcher.

The researcher's previously limited experience with boarding school settings was another limitation. Recruitment of participants was dependant on a word of mouth (or 'snowball') process, which was identified as an appropriate method for engagement with communities to which the researcher does not already belong. However, this does not remove the need to establish trust and familiarity. Where interactions with participants were contained to a small window of time, which was often the case when fitting into the structured daily schedules of the current students, there was sometimes a difficulty in establishing a comfortable environment quickly enough for the students

to engage meaningfully with the topic. In many cases the final minutes of a discussion would be the most relaxed and engaged, suggesting that the short time-period may have limited some of the participant voices. Over time, strategies were developed reflexively within the methods to increase the informality and ease of the discussion to relieve these issues, such as scheduling the research in times and locations in which participants would be more relaxed, and were freer to come and go from the conversation. Despite these efforts, it is a limitation of the current research that the researcher was usually an outsider, and often was not able to build sustained relationships with the participants.

8.2.2 Depth of engagement

The research with student participants was often limited to a relatively short period of interaction (between half an hour and two hours), to reduce responder fatigue and minimize disruption to the students' busy schedules. As indicated by the sessions that were able to extend over longer periods of time (notable, when the researcher was able to spend multiple days building familiarity), it is likely that the data would be richer with more time spent relationship building. Similarly, the data may be stronger if the participants had more direct interaction with one another, for example through some bigger group yarns, by conducting multiple yarns with each group, and by increasing the snowball recruitment so that more friends of participants were included. These are all considerations for future research.

Similarly, it is a limitation that home communities and families of student participants were not engaged with directly within this research, and so this is a missing perspective in the data. This is somewhat mitigated by the broad second-hand experience of the boarding school staff and community members that participated, and the inclusion of peer experiences in the yarning by current and past students. However, existing literature has highlighted that the ability for parents and families of boarding school residents to be involved in shaping their experience is critical, and this missing perspective is acknowledged as a limitation of the current findings.

8.2.3 Level of transferability

It should also be noted that many participants of this project could be generalised as being academically higher achieving and with strong interpersonal and leadership

skills. All past student participants were either attending or had graduated from university, many were employed within the industry they had studied towards. In general, current and past students who participated could be characterised as leaders within their communities, highlighted in some cases through their leadership roles at school and through participation in leadership activities within various community organisations. There were no participants who at the time of contact had left their studies before completion. Though there were no formal measurements taken to assess the potential impact of 'high achievers' on the findings, it could be argued that this tendency within the sample affects the transferability of themes. The findings presented in this thesis may underestimate the negative impacts of feeling a lack of belonging in boarding school, and the potential negative impacts of the experience more generally. This could also mean that the mitigating potential of interior design in the actual population is under or over-stated, as the experiences captured here relate to students who may be perceived as having achieved 'successful' education outcomes. Further research, perhaps through recruitment methods more conducive to varied population samples, would be needed to test this.

It could also be seen as a limitation that the experiences included in this study relate primarily to boarding schools in the Perth inner and outer metropolitan area, with the exception of one independent school catering specifically to Aboriginal and Torres Strait Islander students located in an outer regional centre. It is an acknowledged limitation that the participant voices and resulting themes, therefore, are not representative of all models of boarding schools (of which there are many) in Western Australia, national, or internationally. The findings also do not account for the possibly different experiences of living in regional residential colleges, rotary colleges, youth hostels, and the many independent boarding schools that exist in Western Australia outside of the Perth metropolitan area. Future research to compare the impact of the physical design of various boarding school models on sense of belonging, perhaps through a case study methodology, would be helpful in determining the applicability of findings between these settings.

There are acknowledged limitations to the applicability of any research pertaining to the experience of boarding schools to other accommodation settings such as family group homes, hostels, and residential colleges. The selectivity of many schools also potentially restricts the findings to those students who have already demonstrated

strong commitment to their education and have been deemed 'most likely to complete'. As English and Guerin (2018) highlight:

...most scholarships and private school boarding options seek the best students and those most likely to complete, whereas government policy is being directed at having most or all remote Indigenous students attend boarding facilities. This also means that any findings of research in these (currently) selective schools might not apply when non-selected students attend the same schools.

(p. 37)

This is similarly the case with the participants of this research, who by virtue of being recommended to the study were 'selected' as the most likely to be confident communicators about their experience. This limitation is somewhat mitigated by the times in which the researcher was able to spend more time with potential participants (over several days). In these instances, the yarning and drawing was more informal and less rushed, and some students participated who were not initially comfortable or familiar with the researcher. However, it remains a consideration that the participants had likely already been through a selection process by their school.

8.2.4 Organisation of the data

The next limiting factor, which was touched on in Chapter 3, is that data has been organised and understood in relation to groups rather than individuals. This limits the ability to present individual stories and pathways, and to compare voices and positions within the project with equal weight. The variety in group sizes and the different levels and types of contribution within each group complicates the data in some ways, and this is acknowledged as a limitation in the current study. For example, in some cases data were collected with groups in an informal setting such as a common room, mid-term camp, or lounge space in which other students were also present. While only the voices of those students who provided informed consent are presented in this thesis, there were also informal contributions. Additionally, due to the intentionally cumulative nature of the data collection, responses did not emerge in isolation of one other and,

therefore, cannot be attributed with an objective value. This may be seen as a limitation.

Within the context of these limitations, key thematic findings from the research are discussed in the following sections in relation to the current literature. In doing so, the themes are positions within a broader theoretical context, leading to a concept for a 'feedback model of belonging'.

8.3 Contextual factors for perceptions of place Identity

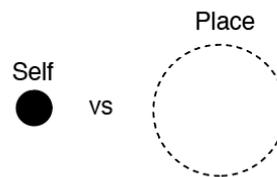


Figure 17: Self and place

The theme of place identity captured how the 'self' was related to 'place' by participants in this research (Figure 22). From the data it appears that there is a gap between students' construction of their own 'place identity' and their perception of the 'place identity' of boarding schools. This disconnect was attributed to implicit and explicit messages in the architecture. For example, boarding schools were perceived as institutional, prison-like, and *'English'* (Staff B 01). To relate positively with a place, student participants of this research highlighted the important role of feeling genuinely welcome, culturally connected, and as though the space was made *'by young people for young people'* (Past C 01). The role for interior design in creating a belonging in this sense is in the level to which Aboriginal students felt that their identity aligned with the place in the form it was provided. In other words, it reflected whether there was a good 'fit' between themselves and the place. Furthermore, the participants' yarning and drawings suggested that this 'fit' could be improved through an increased connection to local Country in the design, by incorporating information about the site's history into the design, and by aligning the overall style of the design with a residential typology rather than an institutional one. Many of these findings have precedent in the existing literature, which are explained here.

8.3.1 Other aspects of the initial transition

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. For many Aboriginal students from remote locations, it has been reported that attending a boarding school can be the first time they have 'experienced being an ethnic minority on a daily basis' (Macdonald, 2018, p. 205). Therefore, it is acknowledged in this research that this 'shock' is not only in response to the physical environment, but also in response to other social and academic factors. For instance, the current literature reflects a theme that Aboriginal students experience difficulty in transitioning to boarding school which can be exacerbated by 'the degree of academic difference between students' previous schools and some more prestigious boarding environments' (Macdonald, 2018, p. 204). The construction of some schools as 'prestigious' is in itself reflective of dominant epistemological positions about which knowledges should be privileged, and this too may contribute to a reduced sense of belonging for Aboriginal students in a new environment. Similarly, wealth disparity has also been reported as a challenging factor, due to the perceived 'lifestyle and level of social privilege found in Perth in contrast to that found at home' (Mander, 2012, p. 153). As Rogers (2018) puts it, this 'can position Indigenous students as needy and lacking, further extending the gap between student and staff perceptions of what it means to be a regular student and an Indigenous student attending boarding' (Rogers, 2018, p. 212). These are not all issues that can be addressed through the design of the built environment, but the participant voices in this research suggest that it would be valuable for this dimension of the transition to be improved.

8.3.2 Understanding separation from Country

Overall, the findings of this research support the theme in the existing (though limited) literature pertaining to perceptions of the physical environment of Australia boarding schools - that place identity is connected with wellbeing. The themes in this study align with the established notion that geographic separation and the impact it has on belonging and health is a challenge that students and schools must navigate. As in other research, separation from Country was a reason given for anecdotal stories of Aboriginal students dropping out of school (O'Bryan, 2016). For example, in the case of the group of past student participants (Past C 01) whose friend had returned home

after not receiving adequate support in dealing with the bad spirits that visited here. This suggests that homesickness is not only an issue of geographic distance, but also the loss of the student's support system.

Similarly, homesickness was described in this study as more than geographic separation, but through the loss of identity and belonging. The existing literature finds that it is 'not unusual' for staff to find that 'some students do not return to school after going back to the family home for school holidays' (Bobongie, 2017, p. 132). This is said to be in response to 'actual or anticipated separation from family and home', and a 'yearning while at home for past and lost opportunities' (Mander, 2012, p. 154). This can result in frustration that 'nobody, either at home or at school, seemed to understand their plight' (O'Bryan, 2016, p. 140), something which was also expressed by participants of this study, for example saying that 'you can't win either way' (Past C 01). In this way, homesickness induced by attending boarding school is not just a 'school-based issue' for many Aboriginal students, but a deeper challenge to sense of identity and belonging (Mander, 2012, p. 154).

8.3.3 The impact of intergenerational knowledge

Further, the participants of this research highlighted the effect of intergeneration associations on their perception of the place identity of boarding school experience for Aboriginal students. In addition to the impact of size, scale, crowding, freedom, and structure described above, which may be explained through existing theories of environmental psychology, this is a dimension to the boarding school experience that has received only limited attention so far. The specific and intangible associations of participants between the architecture of boarding schools and the long history of institutionalisation of Aboriginal and Torres Strait Islander people in Western Australia is a key finding of this research. This is in line with literature that highlights the barriers that can exist for Aboriginal people in occupying some spaces and places, based on knowledge of past exclusion. For example, in relation to medical services:

I want equal rights to health, [segregation] made [the] next generation question. I heard a bloke say 'I won't go to those institutions, "cos they never let my mother in"' [P13—Aboriginal].

This is something that is becoming relatively well understood in some contexts, such as for health services (for example Fredericks, 2014; O'Rourke & Nash, 2020; Nash, O'Rourke, Haynes et al., 2019), but requires further examination in a boarding school setting. This is especially important given that there is an ongoing perception in some communities that boarding schools are a method of removing Aboriginal young people from their family and culture, the process of which has been criticised as a continuation of assimilationist education. These perceptions are likely to be further reinforced if the architecture of these places are a direct continuation of the style and organisation of those that institutionalised or excluded Aboriginal people in the past. While this research has primarily focused on a small scale of place identity (the interior of buildings), it is important not to divorce this from the wider context of the built environment. Lefebvre (1974) suggests that 'repetitious spaces are the outcome of repetitive gestures' (Lefebvre, 1974, p. 75). From this understanding, it follows that architecture which continues to make Aboriginal students feel excluded or imprisoned by education through institutionalised by residential settings can be seen as an outcome of unchanged 'repetitive gestures' from architects, school leaders, and policy makers.

8.3.4 Institutional perception of boarding school

The themes in this research suggests spatial analogies between boarding schools and other 'disciplinary machines' (Foucault, 1977), as introduced in Chapter 2. Foucault's alignment of boarding schools with the prison typology gives theoretical explanation to the participants perception that boarding schools can feel 'like prison' (Staff C 01) or 'like hospital' (Past A 01). Further, participants' descriptions of feeling watched (4.5.2) can be understood in relation to Foucault's concept of the panopticon, which relates social power with perceived observation by others. Participants reported both direct and intangible experiences of surveillance by non-Aboriginal staff and students that impacted upon their sense of freedom and control within the boarding house, and in turn their sense of belonging there. This was described especially in relation to their social interactions with other Aboriginal students, about which a degree of self-consciousness was often expressed even if there was no specific cause. The themes in this research suggest that resistance to the typological characteristics of 'heterotopias' (Foucault, 1971), including spatial strategies that

counteract or provide relief from the panopticon-like continual supervision, could be mitigating factors against an institutional perception of boarding schools.

8.4 Positioning the social atlas typology

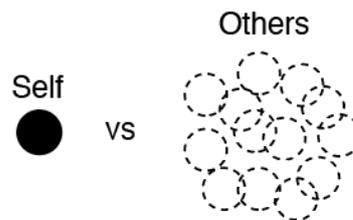


Figure 18: Self and others

Participant views about the role of design in relation to 'self' and 'others' reflected the established connection in the literature between sense of belonging and perceived quality of social relationships (Baumeister & Leary, 1995). Similar to this research, the existing literature captures the challenges of communal living and the diversity of ways that this can be experienced. For example, Rogers (2018) reports that 'students were open about the challenges of living in tight spaces with many young women' (p. 201). From the descriptions in this research, the role for interior design seems to be in providing information and options. By affording students with the ability to read, understand and interact with the social landscape of their housing according to their needs, the likelihood of their feeling that the environment is a good 'fit' for them may be increased.

8.4.1 The need for Aboriginal peer support

Consistent with the literature, an emergent theme in this research is that Aboriginal students seek connection and comfort with one another, at least in their initial transition to boarding school. This has theoretical precedent in the idea of 'homophily', which is the tendency for people to be drawn to others similar to themselves. The level of opportunity for homophily has been explored in a study regarding black students' experiences of residential hall architecture in the United States. The study highlights the 'role of race in shaping the extent to which one can find other persons

with similar backgrounds' and finds that 'Black students benefited more from homophily opportunity than White students within the socializing corridor residence halls' (Brown, Volk & Spratto, 2019, p. 278). The data in the current study also supports the finding that 'contextual factors interact with race in meaningful ways', but that 'planning interventions solely based on students' race may not matter if the homophily opportunity is not supported by both the physical and organizational structures of the college or university', in this case of the boarding school (p. 277). This was exemplified by the Aboriginal students' description of the physical and organisation barriers they encountered in their attempts to 'make a mob' with each other. The rules pertaining to banning sleepovers, the lack of flexible sleeping arrangements, a lack of acoustic privacy in the design, and an overall feeling of being watched had a disproportionately negative impact on the Aboriginal students, whose opportunity for homophily was reduced as a result. Thus the findings of this study which are, in turn, supportive of other previous research, is that there is a need for designers to consider the un-equal impact that design of student housing can have on residents in terms of isolating or socialising approaches.

8.4.2 Understanding why friendships end

As the phenomenon of homophily predicts that friends tend to be similar to one another, friendship endings are typically attributed to dissimilarity between peers (Hafen, Laursen, Burk, Kerr, & Stattin, 2011). Adolescent friendship endings have also been attributed to undesirable individual attributes, the 'fleeting' nature of adolescent friendships to begin with and other factors such as the search for 'status', differences in 'school competency', and levels of 'physical aggression' (Hartl, Laursen, Antonius & Cillessen, 2015, p. 1312). While these factors are undoubtedly important in the social experience of Aboriginal boarders, they do not account for the phenomenon described by participants of this research of 'being split up' by school staff. In the existing literature pertaining to friendship ending, there appears to be a limited understanding of the psychological consequences of institutional or guardian enforced ending of peer relationships. The current literature pertaining to friendship endings of young people seem to imply that they are invariably within the control of at least one party. External factors such 'physical separation, new friends replace old, growing to dislike the friend, and interference from dating or marriage' (Rose, 1984, p. 267; Johnson, Becker, Craig, Gilchrist & Haigh, 2009) have also been highlighted

as barriers to friendships for young adults, but again this does not fully capture the experience of the participants in this study.

As Healy (2015) explains, the ‘anguish and grief’ experienced by young people in response to loss of friendship is not only for the loss of a playmate (as may be assumed by teachers and parents), but for the ‘life lived together’ (Healy, 2015, p. 194). This means that when young people’s friendships are impaired by external forces or arrangements, they also experience a loss of ‘the persons they have made each other’ and their imagined shared future (Healy, 2015, p. 194). Therefore, if Aboriginal students are not permitted to maintain close friendships with each other at boarding school, as was the case for some participants of this project, then their ability to celebrate ‘the persons they have made each other’ and their ‘imagined shared future together’ is also impacted. Resilience is frequently highlighted as a key determining factor for positive psychosocial development of Aboriginal young people (Hopkins, Taylor & Zubrick, 2018). This concept can also be applied to the ‘resilience’ of friendships, which ‘may help to offset’ the impact of negative social events. This could manifest through interior design, for example through the loss of a shared voice and identity in a space, thereby potentially exacerbating the feeling of not belonging. Conversely, it is possible that the negative aspects of this experience could be mitigated through design, by allowing students to reinforce their shared identity and imagined future through self-expression.

8.4.3 The social function of circularity

Circular space, as it was described by participants of this research, can be understood through the concepts of ‘socio-petal’ and ‘socio-fugal’ in environmental psychology. While the prevalence of ‘curvilinear forms’ to reflect Aboriginal culture in architecture has been criticised by some as ‘promoting a romantic, primitivist view of Aboriginal culture and identity’, the circular layouts proposed by participants of this project reflected an important social function (Grant and Greenop, 2018, p. 67). A socio-petal room affords interaction by orienting occupants toward each other. A socio-fugal space, on the other hand, may have boundary walls and seats facing away from each other, thereby inhibiting interaction (Meagher & Marsh, p. 206). In the current research, participants proposed both ‘circular’ and ‘square’ shapes in their designs, but the social function of the space was always centric. This understanding of

circularity allows layers of interaction for occupants to choose their own engagement level, aligning with a 'socio petal' approach.

Circular design could also be understood in terms of a central focus point. This is an existing concept in the design of dormitory architecture that resembles a 'nucleic family' home. The suggestions in the existing literature are that an integrated nucleus model of design can be used more easily by small groups and that they work to overcome the alienation that can be induced by large common space (Chirarantoni, 2009). The clustering of smaller, centric spaces have also been shown to be perceived as overall less monotonous and more stimulating, aligning with the suggestion by one participant to 'spice it up' (Current B 02). It has been suggested that one way for this to be achieved is by converting long corridors into a series of small corridors, as this will encourage more social engagement and less unwanted interaction (Baum & Davis, 1980). Though they are not new, these principles are largely un-responded to in the current boarding school design according to the descriptions by participants of this study, regardless of the age of the buildings. The existing literature suggests that there is theoretical merit to the students' circular proposals for design, which seem to have a social function beyond the symbolic use of the shape.

8.4.4 Existing ideas for a combination typology

The proposal for an 'atlas' typology, based on the themes in the participant data, has some alignment with existing literature. In this study, participants described many spatial features that would better support their social needs, which overall can be understood as a need to continually balance alone-ness and together-ness, noting that each of these is important at different times. English and Guerin (2018) propose a 'new combination boarding option' as an 'amalgamation of the identified finer features of the boarding facilities' (p. 50). Their suggestion is that larger residences be divided into several self-contained dwellings, with the ability to cater to varying levels of student independence and temporary family visits (English & Guerin, 2018, p. 50). The authors further advocate for an architectural approach that resembles 'a series of attached family homes that may provide a more community feel rather than resemble separate individual units' (English & Guerin, 2018, p. 50). This idea is consistent with the data of this project, in which

participants also suggested smaller scale and more 'home-like' designs for future boarding facilities. The suggestion to combine the advantages of larger boarding houses with the independence and atmosphere of a smaller home is aligned with the approach of one of the schools in this study, in which a flexible combination of dormitory and independent living was found to be effective (described by Staff A 01).

There was a tension perceived by students in this research between the structure of their boarding school and their personal freedoms. This is consistent with an emerging theme in the literature, which is that the advantages of boarding school over other accommodation options. For example, the ability to make many new friends, being exposed to different cultures, having access to school support programmes can sometimes be at the expense of personal freedom, a feeling being personally cared for, flexibility, and a home-like environment. Further, the views expressed by participants of this study were consistent with the pattern identified by Benveniste, Dawson and Rainbird (2015), 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). This can be exacerbated in the design of high-density environment such as boarding school, in which repetition and order is an effective way to organise large numbers of people. In line with the recommendation from English and Guerin that 'a combination of the boarding options' would allow for the 'better features of the larger and smaller boarding options together', findings of this study similarly suggest advantages in designing more informal, relaxed, and flexible, and self-contained spaces for unstructured social and study time within a the larger setting of an on-site boarding school (English & Guerin, 2018, p. 49).

The findings of this research also support the idea for a 'combination model' of accommodation, but also go further. Here, the suggestion is that within a combination of predetermined small- and large-scale housing options there should also be imbedded social knowledge and spatial flexibility, allowing students to navigate their experience of alone-ness and together-ness in a self-determined way. However, as English and Guerin highlight, typological suggestions such as this are general in nature, and should be modified to suit the needs of specific settings and populations. The findings of this research similarly support the proposal of the authors that 'it

is essential that the model proposed is underpinned by the appropriate governing Indigenous body to guide both the current and future developments as well as the culturally relevant environment at the residence' (English & Guerin, 2018, p. 50). This modification may also mitigate against negative consequences of repetition (Lefebvre, 1974).

The findings of this research aligned with existing theory from the literature review, that the excessive stimulation of high density housing could make it difficult for students to be concerned and involved with others as 'students are confronted with so many other students that they cannot deal with them as individuals' (Bickman et al., 1973, p. 497). This came through in the suggestion that 'you can be belonging too much' (Current B 02), that boarding school can be 'overwhelming' (Current E 01; Current D 01) and in the overall wish expressed by many participants for a more family style and small scale dynamic. While the data from this study, and others, does not justify abandonment of high-density housing altogether (in fact many benefits were highlighted for larger scale facilities), it does further reinforce the need for architects and planners to be aware of the psychological consequences associated with density in their designs.

By interconnecting locational and social mapping, a greater sense of relatedness could be facilitated within the boarding house. As described by Rogers (2018), genealogy defines the spiritual network for Aboriginal people that links 'past, present, future, land and all living things' and 'creates space and time' (Rogers, 2018, p. 5). In extension of this, the participant voices presented here suggest that the concept of relatedness could be engaged with spatially. This may allow for non-verbal interaction and learning about students' homes and lives outside of school, which in turn could relieve individual students from some of the responsibility of regularly explaining this.

8.5 Spatial voice as a form of participation

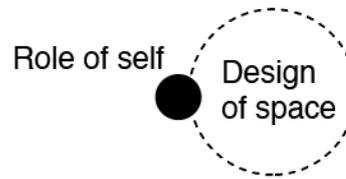


Figure 19: Role of self in the design of space

A relationship was suggested between participation and sense of belonging in the data of this study. While participation could resemble sense of belonging, and was often described as such, the two are not synonymous. Rather, the findings of this research seem to indicate that they interact in a symbiotic way: participation can increase sense of belonging, and sense of belonging can increase participation (Figure 20).

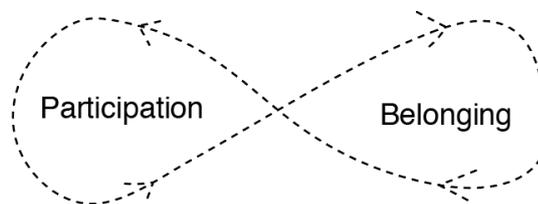


Figure 20: Interaction between participation and sense of belonging

However, the type of participation referred to in the data had certain characteristics that distinguished it from other strategies for student engagement, illustrated in Table 24.

Table 234: Characteristics for belonging activities

Characteristic	Summary
<i>No predetermined number of participants</i>	The success of the activity is equally as possible with one or two participants as with ten or twenty.
<i>Varying levels of involvement possible</i>	It is possible to spectate, have a small role or a big role, and still feel involved in the activity.
<i>Common understanding of activity</i>	The activity is based on universally familiar concepts and common experiences.
<i>Not structured by time</i>	The activity is closer to ritual than routine, in that it progresses but is not overtly structured by time.
<i>Conducive to non-verbal communication</i>	Participation in the activity is not dependant on verbal communication, and by extension does not require shared language.
<i>Allows conversation without eye contact</i>	The activity allows conversation to occur while engaging physically in something else, releasing participants from the obligation of eye contact.
<i>Non-competitive</i>	The activity is non-competitive in that there are no winners or losers, also in that promotes an atmosphere of collaboration or personal development over competition.

Overall, the suggestion from this is that amenity should be provided in the boarding house for unstructured, ritual based activities that do not have predetermined rules or limits to participation. These activities were typically connected with fundamental human needs and interests, for example cooking, planting, caring for children and pets, art, unstructured play, and games such as pool or some videogames. One participant described her love for fishing, which also shares the characteristics above. For her, this was associated with sense of belonging, and she expressed dissatisfaction with not being able to access this activity while away from home.

The wish for increased participation of this sort was also extended more generally to the design of the boarding school. Through participants' examples, a need for the

environment to be more responsive to the interests of students was highlighted, as was the potential role of a design that facilitates self-expression.

8.5.1 Food and space

The social and spatial dimensions of food and cooking that were described in this study align with themes in the existing literature. It is not just the loss of familiar food, but also the lack of involvement in its preparation which impacts negatively on sense of belonging. This is reflected in previous reports that students sometimes bring familiar seafoods from home to boarding school to share, but find that 'it's hard to cook it because they [the other boarders] get put off [by the smell] and we've got nowhere to cook it' (Bobongie, 2017, p. 134). Mander (2012) describes the 'astonishment' of students when 'encountering the dietary and nutritional regime offered in the dining hall', with a participant saying that 'normally we eat fresh meat, as for down here we eat frozen meat. We eat kangaroo, turkey, goanna, things like that up home. We catch it and cook it ourselves' (p. 154). Adjustment to unfamiliar foods is described as 'one of the most difficult processes of transition' to boarding school for Aboriginal and Torres Strait Islander students (Bobongie, 2017, p. 133). The accounts suggest a role for the design of spaces that can better facilitate the preparation of cultural recipes, and foods from home that may be unfamiliar or unappreciated by other student residents.

8.5.2 Interaction with plants

There is a large body of literature pertaining to the health and wellbeing benefits of incorporating plants into interior environments. While the existing literature makes clear that proximity with 'greenspace' can lead to reduced stressed and better mental health (Pearson & Craig, 2014), the current data goes further. Here, the suggestion is that the value of incorporating plants into buildings is also about peoples' ability to be actively involved with them. In other words, being plant-adjacent does not elicit the same feeling of connectedness and self-efficacy of gardening. While the physical health benefits of being in proximity to plants are well established, for example improved air quality (Pegas, Alves, Nunes, Evtugina, and Pio, 2012) and reduced eye strain (Wilkins, 2017), what the participants of this project suggested is that there could also be social benefits to involvement with plants within the interior spaces of their boarding schools, for example by having indoor plants in their bedrooms. This

has some precedent in a study by Lee, Lee, Park, and Miyazaki (2015), which suggests that interaction by young adults with indoor plants, in the case of their research through the transplantation of a potted indoor plant, can lead to reduced physiological and psychological stress. Through the 'suppression of sympathetic nervous system activity and diastolic blood pressure and promotion of comfortable, soothed, and natural feelings' (p. 5). Furthermore, gardening has the potential to give students a purpose for being outside beyond formally structured activities such as sport and school excursions. This may be a useful way to engage students who are not interested or able to participate in sport. In summary, while the restorative properties of plants (and natural environments more generally) are well established, the participant voices in this research suggest that proximity is not enough, and that there is value to be gained for students who are able to actively tend to plants.

8.5.3 Decoration as safety

The data suggested that decoration of personal spaces can facilitate a sense of ownership and provides opportunity for self-expression for Aboriginal students at boarding school, a potential factor for increasing their sense of belonging. In line with literature suggesting that home environments can be tools to regulate emotional experiences, data from this research also suggests that decoration can reinforce identity and self-worth (Graham, Gosling & Travis, 2015). Within the existing literature decoration can be a way for people to claim, care for, and nurture their built spaces. Through personalisation, people change their environment to suit their needs and behaviours. Personalisation can also increase a sense of psychological security in a place, be a way of communicating symbolic messages, show aesthetic taste, and be a way of marking territory (Mehta & Bosson, 2010). Conversely, a lack of personalisation in a space has been reported to create a negative perception of care and safety (Perkins, Wandersman, Rich & Taylor, 1993; Hope & Hough, 1988; Perkins, Meeks & Taylor, 1992; Mehta & Bosson, 2010). This was the case for the Aboriginal participants of this study, who described the monotony and lack of personality at boarding school as a barrier to feeling a sense of ownership. Further, the participants described a wish for more opportunities in which they could be involved with and nurturing of their environment. The barriers to doing so were administrative and physical, suggesting that this is an issue that should be considered by both designers and school leaders.

8.6 Third space in boarding schools

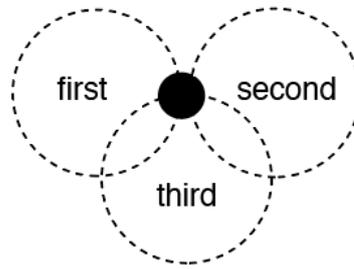


Figure 21: *Self in between spaces*

Based on the current finding it appears that third spaces and places need to be designed not only at a macro city level, but at a micro interior scale, too. Further to this, the interior design of student housing (specifically Western Australian boarding schools) could benefit from the social and spatial freedom allowed by a consideration of third space in design.

When viewed in relation to Oldenburg's (1989) theory of third places, one criticism of boarding schools as a housing arrangement is that students lack distinction between their 'school' and 'home' self in their day-to-day routines. By Oldenburg's definition, boarding schools are not third places as their purpose is not social and the function is not distinct from work or home. On the other hand, boarding schools are not the students' 'real' home or school either. From this data, it seems that combining the functions of home and work into one setting does not inherently create a third place, but rather an un-reconciled amalgam of first and second place. The provision of a distinctly third place, therefore, is lost and with it the associated social benefits.

By extension there is no space for being separate to the 'place identity' of school. As one participant of this research described it, *'you never really have an escape'* (Current D 01). The suggestion from this theme is that interior design could play a role in increasing a sense of belonging by providing further distinction between the identities of first space (the boarding house) and second space (the school campus). This could also be considered in relation to how Aboriginal students spatially move between their different identities (transition) and the availability of places where they feel they can be their full selves, which includes the need for cultural safety and celebration (ownership).

The location of support programs solely within academic and formal contexts could further complicate existing identity tensions, which in some cases have been described as a ‘crippling disconnect’ between the ‘public persona’ and ‘private sense of self’ (O’Byran, 2016, p. 179). In line with the construction of third space as neither ‘home’ or ‘work’ (Oldenburg, 1994), this space should have a distinct location and character from staff offices and classrooms. This could also be understood in terms of an ‘inner layer’ of ‘holding space’ for Indigenous people in white institutions described by Elston (2003). Symbolic messages communicated to students by physical spaces should be considered in the design and delivery of boarding school programs, recognising that this can affect the level to which students feel supported.

8.6.1 Scales of third space

As presented in Chapter 4, home and boarding school were characterised as having distinct place identities. Though students reported their struggle with the lack of familiarity in their boarding school, this seemed to be a boundary they did not wish to confuse. This presents another sort of middle-ness, or ‘third’-ness, that must be spatially navigated. Figure 22 represents the possibility for three place identities at boarding school: boarding, school, and a third transitional social space, nested within the larger differentiation between home and school. Here, the third space can be viewed as a literal spatial manifestation of Bhabha’s (1994) concept for a hybrid ‘third space’ between cultures.

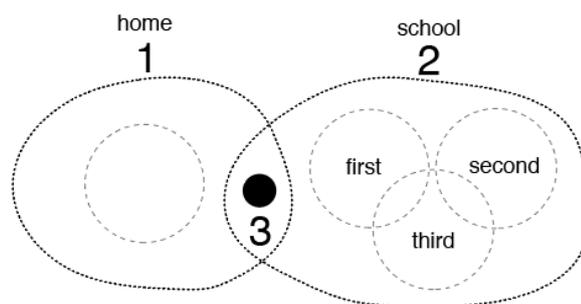


Figure 22: Scales of third space

8.6.2 The need for cultural safety

The provision of a culturally safe space, such as those described by participants in the data, responds to the premise that a safe and healthy social environment has

been shown to be a rationale for sending students to boarding school in the first place (Mander, 2012; MacDonald, 2016; O'Bryan, 2016). It is important that this safety refers to the cultural environment of boarding school as well as the basic provision of secure shelter, as both will have an impact on students' experience of identity and belonging. As Mander (2012) indicates, 'unless Aboriginal students perceive an environment as safe and secure, they do not feel confident and comfortable expressing their identity at school' (p. 161). In line with the view that 'predominantly non-Indigenous boarding schools' need to critically examine the cultural safety of the environments they provide (O'Bryan, 2016, p. 233), this research suggests that a sense of belonging can be increased for Aboriginal and Torres Strait Islander students through access to culturally safe spaces.

8.6.3 *The politics of 'safe space'*

There is not a single third space—they are many and varied, they shift, they are spaces rather than places. They're often risky, unsettling spaces—where the security and familiarity of our own place of belonging has to be left behind.

(Dudgeon & Fielder, 2006, p. 407)

Student participants of this research expressed an awareness of the politicised nature of the idea of a 'safe space', as related to their proposals for a culturally safe place within the boarding school. As one past student said, 'it's a bit political as well' (Past C 01). This was exemplified through the recounting of non-Aboriginal staff and students' reactions to programs and services designed for Aboriginal students, for example 'why do they get a room' (Staff C 01), 'they're being exclusive' (Past C 01), and 'why do the Aboriginal people always sit with each other?' (Past C 01). The underlying tension surrounding this topic, which the students articulated in various ways in their yarning, can also be seen in the national debate about a culturally safe study space at the Queensland University of Technology (QUT) in 2013. This debate was initiated after a group of white students were asked to leave a study room for Aboriginal and Torres Strait Islander students by a staff member. Comments on social media led to discussion from other students at the university about the fairness of the facility, which in turn led to national debate as to whether the practice of providing a

purposeful room to support Aboriginal and Torres Strait Islander students with their studies is in itself a form of segregation, discrimination, and inequality (for example Eddie, 2016; Chung, 2016; Slater 2016). The staff member received harassment because of the incident, and in 2016 sought to sue the students involved under the Racial Discrimination Act. Relevant to this thesis and the yarning of participants is that although this legal case was concerned with the interaction (and possible discrimination) that occurred between the staff member and the students, the public discourse and criticism was directed towards the existence of the room (for example, The Brisbane Times, 2016).

In this way, a high-profile news story was underpinned by the politics of spatial ownership and occupation. The specific circumstances of the case are not the focus of this discussion, rather the views that emerged on the topic of Aboriginal and Torres Strait Islander students' spatialised experience of education are used here to give context to the ideas and concerns of the participants in this research. An article for the Sydney Morning Herald by Slater (2016), titled '*No place for safe spaces in Australian universities*', provides a useful summary of the tension on this issue. Several questions were posed to readers by Slater, and these are used here in conversation with the themes from participants of this project.

First, in response to the QUT Vice Chancellor Owen Coaldrake's position that such spaces (those that are only for Aboriginal and Torres Strait Islander students, as in the QUT case) are for the purposes of assisting and supporting Aboriginal and Torres Strait Islander students in the pursuit of their higher education, Slater (2016) asks for further explanation:

- 1) '*What Mr Coaldrake failed to explain was how supplying computers, desks and photocopiers exclusively for Indigenous students did anything meaningful to advance their education*' (Slater, 2016).

To understand this, a wider view of the situation is first needed, one in which the fundamental human need to belong is taken into consideration. This research suggests that it is not the provision of equipment that is the determinant of this space's value, it is that it may allow Aboriginal students to participate in education without sacrificing their sense of belonging. For participants, sense of belonging could be increased within boarding schools through having access to an environment

underpinned by shared Aboriginality. In the words of one student, *'it's the whole Aboriginality of the space'* that makes the sense of belonging (Past C 01). One staff participant (Staff C 01) explained that in her many years of experience in supporting Aboriginal and Torres Strait Islander students who live away from home, enforcement of separate rooms for study and socialisation usually resulted in the students taking their study to the social room or socialising in the study room. Her observation was that it worked best for the students to have the option of combining these functions, and so her solution was to provide one large room with multiple flexible settings that could be used for either, or a combination. In line with this, it is logical that a space concerned with increasing a sense of belonging for Aboriginal and Torres Strait Islander students during their engagement with education should include the tools that make study possible. Therefore, this environment, which is for the exclusive purpose of providing support to Aboriginal and Torres Strait Islander students, may also include computers, desks, and photocopiers.

- 2) *'Do Indigenous students face such a high risk of harassment or vilification that they need sections of the university's plush inner-city campus to be cordoned off for their own physical and mental wellbeing?'* (Slater, 2016).

From this research, the short answer to this question is yes. Aboriginal and Torres Strait Islander student experiences of overt and implicit racism at interpersonal and institutional scales and are widely reported on in the academic literature (de Plevitz, 2007 and Moodie, Maxwell & Rudolph, 2019). As presented in the previous chapter (7.3.1), participants of this study similarly reported direct experiences of racism from other students, in addition to the indirect associations and messages about their Aboriginal identity that they felt were implicit in the boarding school environment. This aligns with the findings of existing literature about boarding school experiences that were reviewed in Chapter 2 (Mander, 2012; Benveniste, 2015; O'Bryan, 2016; Bobongie, 2018; Rogers, 2018; Redman-MacLaren et al., 2019). The research to date suggests that there is a need to do more to address this issue.

Further, there is an assumption in this question that 'plush'-ness can be equated with suitability. This confuses the students' fundamental human need to belong with the idea that the campus architecture is a luxury for which the students should be more appreciative. Based on the data provided by the participants in this research it seems that the 'plush' and 'inner-city' nature of their school and university campuses can be

a direct contributing factor to their feeling excluded or out of place there. The notion that Aboriginal students' physical and mental wellbeing are often challenged by these qualities, not inherently eased by them, is supported in the existing boarding school literature, discussed in Chapter 2. This can be further explained through the premise that architecture is not neutral and experiences of it are, therefore, not universal, as established through the literature review in Chapter 2. It is important for planners to understand that expensive facilities are not synonymous with cultural suitability.

As for 'cording off', the participant voices in this project suggest that the key characteristics of a third, or 'safe', space are the provision of transitional support and a sense of ownership. This has similarity to existing ideas of '*Counter Space*' (Elston, Saunders, Hayes, Bainbridge & McCoy, 2003), '*Holding Space*' (Mayeda, Keil, Dutton & 'Ofamo'oni, 2014), and '*Meeting Space*' (Barney, 2018). In all concepts, the benefits of the space are not because of the imposed boundary, but through the social experience created within it. This is a key point to understand in the context of the current study where student participants did not describe a wish to exclude their non-Aboriginal peers, rather they imagined a space that was underpinned by their shared Aboriginal identity. These are different things.

Following on from this, the need for a threshold to be porous and communicative was frequently highlighted by both the participants of this research and in other discussions about the need for safe space in schools and universities (2.2.5). There is an underlying assumption in the framing of this as a 'cording off', that by creating a space of ownership for Aboriginal and Torres Strait Islander students they are either ungrateful for the quality of their campus or, conversely, that they wish to hoard its premium features for themselves. Neither of those sentiments were apparent in the yarning with participants of this research. By contrast, the student participants were sensitive to the possibility that their design ideas would be perceived in this way by others and subsequently made many suggestions for how it could be set up in an inclusive and empathetic manner. The focus of the yarning frequently returned to the need for more understanding and awareness of different cultures within the boarding school, which participants hoped could be partially achieved through their ideas for design.

- 3) *'If discrimination or bullying is a genuine issue for Indigenous students – or for women, queer and disabled students for that matter – why not root out*

the rot at its source? Why not deal with the bigots and bullies before construction began on race-selective study rooms?’ (Slater, 2016).

The notion that experiences of discrimination and bullying should be addressed at a structural level was similarly reflected in the findings of this study. As described in Chapter 7, there was a strongly held view by some participants that *‘Aboriginal culture should be through everywhere’*, that instead of restricting Aboriginal conceptions to *‘that tiny space’* it should be thought of as *‘everybody’s space’* (Staff B 01). As another participant put it, *‘you could always just make the whole boarding school like that’* (Current B 03). However, the scale of cultural change that would be required to implement this vision effectively was identified as a limitation. As one participant put it, *‘it would be complete culture change for the whole of Australia for that to actually happen’* (Past C 01). As Dudgeon and Fielder (2006) describe it, institutions need to *‘be prepared to shift, to be open, to listen, to change’*, and propose that *‘powerful individuals and groups tend not to want to even acknowledge that there are other legitimate places—so little or no space is given’* (Dudgeon & Fielder, 2006, p. 407). It appears that there is a need for both dedicated meeting space and wider cultural change in schools, and that these are not mutually exclusive agendas.

The other dimension to this question is in the assumed status of the room’s *‘construction’*. As they were described by participants in this research, it appears that the creation of safe spaces for Aboriginal students tend to be highly resourceful adaptations of existing under-utilised amenities, for which staff must often campaign to senior leadership for permission to inhabit. On the other hand, the architecture from which student participants felt an implicit negative message was typically that which was highly formal, large scale, reflecting wealth, and that which was tens or hundreds of years old.

It should be noted that the questions posed by Slater seem to be intentionally provocative, and this polarising line of thought is not reflective of the considerate and balanced way in which participants described their vision for a culturally safe space. By contrast, for many student participants a need for cross cultural understanding was a key feature of such a space, and sensitivity was often expressed for how best to include non-Aboriginal students in their ideas (as described in Chapter 7).

Overall, the findings of this study suggest that there are practical spatial strategies for improving Aboriginal students sense of belonging within education settings in the short term, one of which is the provision of rooms that are reliably available for Aboriginal students to work in proximity and receive culturally specific support while studying. In the long term, deep institutional change is also needed.

8.7 The brown paper roll

While a dedicated room has been found to be an effective and simple spatial strategy for making a third space, there are also other ways of doing this. One example in this research was through the participant yarning and drawing, facilitated by the method of the brown paper roll. This section explains how the large roll of brown paper acted as a mechanism to create third space, and how this could be similarly achieved through other tools and methods. In response to both the participants of this project and concepts in the existing literature, potential similar experiences could include sitting around a fire, quilting, yarning, and painting. Notably, there are many similarities between these activities and those suggested within the theme of 'Spatial Voice' as participatory actions for belonging.

The flexible framework for measuring sense of belonging (based on known factors in the literature) required ongoing adaptation throughout the data collection process to align with participants' language and terms of reference.

Even with this flexibility, use of this tool alone often did not illicit meaningful engagement with the topic, and frequently became an obstacle to the natural flow of conversation. As a result, it was sometimes abandoned in favour of allowing participants to explain experiences and ideas in their own way. This may be viewed as a validity issue in the data and in many ways this lack of consistency did complicate the data analysis, but it also seems that this was a critical choice in the research as it allowed several meaningful and relevant stories to be shared that may not otherwise have been captured. The value of this flexibility was clear in cases when the participants had experiences to share that were outside of the researcher's pre-conceptions for the project. For example, there was no precedent in the environmental psychology literature for the impact of spiritual experiences on Aboriginal students' experience of belonging in places and so this topic was not accounted for in the yarning framework. By allowing participants to take control of

the direction of the conversation, stories about 'haunted' buildings and visits from 'bad spirits' were captured in one of the first yarning sessions. Due to the visible and cumulative approach to data collection in this project, subsequent participants had the opportunity to add their stories to this original point and this became an important theme with a design implication: the need for flexible co-sleeping arrangements. This flexible approach to the 'measurement' of sense of belonging allowed the concept to be continually examined and challenged by participants.

The brown paper roll also allowed the researcher to be involved with the research alongside participants in a way which was flexible and transparent. The value of this has precedent in findings from other visual research. For example, in a recent adaptation of photovoice with Anishinaabek people in Ontario, Canada, the researchers 'participated in the study by presenting, and reflecting upon, their own images' (Bennett et al., 2019, p. 7). In reflecting on the study, it was 'noted how this component built trust between participants and researchers by flattening hierarchies' (p. 7). Similarly, in this research, the researcher's participation in the drawing and yarning was an important non-objective role that helped to create a 'third space' atmosphere. For example, in one group's discussion about the potential value of pets in the boarding house (a theme which recurred throughout the project):

Participant: It would be nice though, looking at an animal or having an animal there. 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.

Researcher: Yeah, just unconditionally loves you. My housemate got a puppy a few months ago, and honestly it's changed my life. I feel so loved. I come home and I'm like, "Oh, you still want to see me."

Participant: My cat just had five kittens, and when my Mum goes home they're all sitting at the door waiting for her...

Researcher: That's got to make you feel so important.

Participant: She does, because when she's sitting on the couch they all jump on her.

(Current C 01, Researcher)

Involvement of the researcher's own personal experiences, though not included within the presentation of data, was an important methodological choice in that it gave the researcher an identity and a tangible frame of reference to which participants could relate their experiences in a conversational way. Again, this highlights how the research findings may be different if conducted by a different person, and suggests the value of future research with Aboriginal borders that is led by Aboriginal researchers, with whom the student's frames of reference may be more aligned. In the context of this project, it was considered necessary to at least engage with the participants in a personal way to suggest the 'ordinary' and 'social' qualities of third places (Oldenburg, 1989) and to align with the principles of yarning, accepting with this the limitations of the researcher's non-Aboriginal identity in doing so.

8.7.1 Connecting multiple spaces

The brown paper roll provided a tool to engage in participatory spatial research while responding to mistakes, ideas, and stories along the way. While this could also be achieved through other drawing formats, the specific function of the continuous roll was that multiple third spaces could be connected to build something larger. This transformed small pockets of isolated dialogue into a larger collection of voices, now represented through an object that literally takes up a lot of space. It also meant that the space was not created from scratch with every session, but rather the same space was continuously extended and refined. This method has potential for application in design contexts in which a process of participation is required between stakeholders of varying abilities and perspectives.

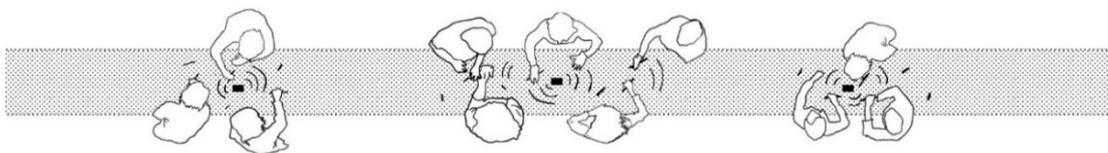


Figure 23: The 'communicative space' for participant discourse.

The continuity of the brown paper roll, that would otherwise have not existed between participants, was effective in increasing the confidence of students 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 the 'communicative space' and 'public sphere' in the PAR, shown in Figure 28 (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. This tool (in comparison to using individual pieces of paper) helped to keep the research process in line with the idea that there should be no 'god's eye view' in PAR, as the participants from different locations could see 'eye to eye' with each other through their shared drawings on the same page (Kemmis, McTaggart, & Nixon, 2014, p.27).

8.7.2 Informal occupation of paper as space

In some cases, the paper was left out for students to contribute to over multiple days after, or in between, yarning. This was found to be very effective in allowing additional ideas and comments to come through, aligning with a reflection by Bessarab and Ng'andu (2010) that time-management in unstructured research can be difficult when participants 'just begin to warm up towards the end of the interview' (p. 47). Leaving the roll of brown paper out meant that ideas could continue after the conclusion of the yarn. When left out in this way, the paper was found to be filled with informal 'mess' such as graffiti tags, signatures, food stains, and nail polish drops - as well as additional participation in the topic. This had the added advantage that in turn, the 'messy' additions communicated to future participants that the paper was not precious and could be interacted with freely. The unintended stains, marks, and wrinkles can also be taken as indication that there was a spatial occupation of the research tool, demonstrating that students chose to use it in a social and interactive way without being prompted. In this way, the un-regulated occupation of the brown paper roll became a form of third space. Put simply, the continuous roll of paper made it feel like all the students were a part of the same project, even though they were geographically separate from one another and did not meet. It was a highly portable and low-tech way of connecting student stories and ideas across multiple locations, and a simple way of ensuring transparency in the research process.

8.7.3 Characteristics of the Brown Paper Roll method

The brown paper roll was found to be an effective research tool for yarning and drawing with Aboriginal young people about design. The brown paper roll can be compared with the previously identified characteristics of participatory activities for belonging. These characteristics are discussed in Table 25 below.

Table 245: Third space characteristics of brown paper roll

Characteristic	Summary
<i>No predetermined number of participants</i>	The success of the activity is equally as possible with one or two participants as with ten or twenty.
This was true of the brown paper roll, which functioned as effectively in yarns with only the researcher and two or three participants, as it did in the largest yarn with eleven participants. It was also conducive to large group situations in which the paper would remain set out for a long period of time, allowing student participants to come and go. This means that the function of the research tool was not adversely impacted by changing numbers of participants.	
<i>Varying levels of involvement possible</i>	It is possible to spectate, have a small role or a big role, and still feel involved in the activity.
The brown paper roll allowed varying levels and types of interaction with the research that would not have been possible with only the yarning, or through a more prescribed or structured format for visual activities. It was not uncommon for one or more participants to work on a drawing while others spoke about a topic. Some participants engaged more in either drawing or yarning, and some engaged very little with either. The size and activity of the roll of brown paper meant that, if set up in a communal space, some students and staff could 'spectate' the activity without participating. While this may not always be a positive characteristic for research in which confidentiality and anonymity between participants is a priority, in this project the passive involvement was seen to be a positive force on the overall sense of community and interest, and a way of ensuring a comfortable and low pressure atmosphere for participants.	
<i>Common understanding of activity</i>	The activity is based on universally familiar concepts and common experiences.
As previously discussed, there were some technical aspects of drawing buildings and spaces that required the researcher to assist the participants in their visual	

<p>communication. However, the concept of drawing and mark making was highly familiar to all participants. As the research progressed, the open expectations of the drawing style and quality was communicated by previous markings, and so a common understanding of the activity became more intuitive over time.</p>	
<p><i>Not structured by time</i></p>	<p>The activity is closer to ritual than routine, in that it progresses but is not overtly structured by time.</p>
<p>Although there were frequently time restrictions on the yarnning and drawing with participants, these were externally imposed by the student's daily schedules and commitments, rather than by the method itself. To move through each of the semi-structured yarnning stages usually took between one and two hours, however, there was frequently more or less time available and this was not found to be an issue. In this way, there was a ritual-like progression to the activity, but it was not dictated by a minimum or maximum amount of time to be successful.</p>	
<p><i>Conducive to non-verbal communication</i></p>	<p>Participation in the activity is not dependant on verbal communication, and by extension does not require shared language as a pre-requisite.</p>
<p>This was true of the brown paper roll method to some extent. The primary data for the study was the considered to be the transcribed yarnning, and this did rely heavily on the shared language between both the participants and the researcher. Given that the student participants were usually proficient in multiple languages, the researcher's involvement in the yarnning was dependant on their translanguaging abilities. In this context, the value of the roll of brown paper served three functions. First, as a medium for written and visual communication which could supplement difference in spoken language. Second, to communicate the purpose, size, and data of the project so far in a non-verbal way (through the length of the roll, and the content within it). Third, to allow potential shared language between participants to be visible. This was especially important given that the researcher was not an Aboriginal person and, therefore, there were often communication differences that had the potential to contribute to some participants feeling alienated from the project. It seems that at times, the visibility of relatable communication styles through the brown paper roll by previous participants helped to mitigate this issue, and by doing so indirectly endorsed the project.</p>	
<p><i>Allows conversation without eye contact</i></p>	<p>The activity allows conversation to occur while engaging physically in something else, releasing participants from the obligation of eye contact.</p>

<p>The brown paper roll allows yarning to occur simultaneously to the physical activity of drawing. Even if the participant speaking was not drawing, they were able to look at the existing images while they spoke or watch someone else draw. This provided a focus point that relieved participants from the obligation of direct eye contact, which for some participants may have enabled them to speak less self-consciously. At the same time, the brown paper roll did not restrict eye contact or other social cues from occurring in situations where it was comfortable or necessary to do so.</p>	
<p><i>Non-competitive</i></p>	<p>The activity is non-competitive in that there are no winners or losers, also in that promotes an atmosphere of collaboration or personal development over competition.</p>
<p>The brown paper roll engaged participants in a form of design process that was non-competitive, in that there were no right or wrong answers. A key characteristic of the roll of paper, as opposed to other formats, was that there was a sense of infinite space to fill. This encouraged unrestricted use of the space and reduced the ability for students to make direct comparison between their drawings and others, as may have been promoted by supplying each student with their own piece of paper. The continuous format also encouraged a collaborative approach to drawing and storytelling, as there was a sense of contribution to a single shared artefact.</p>	

The brown paper roll approach aligns with the criteria for participatory activities that can encourage sense of belonging, as described by the participants of the research. Recent precedent for this approach to participatory research can be seen in use of a community quilt as a safe space for yarning (Bernades, Valery, Arley, Pratt, Medlin, and Meiklejohn, 2020). It is tempting to describe the characteristics of the table above as being innate to ‘creative’ production, as would be convenient in a design context. However, this does not seem to be an accurate summary. Other activities that meet the listed criteria that are not inherently creative could include, but are not limited to, fishing, walking, driving, cleaning, eating, or sitting around a fire.

Participant drawings spanned over twenty metres of space on the roll of brown paper by the end of the project. The total size and variety of drawing styles can be seen below in Figures 24-28.

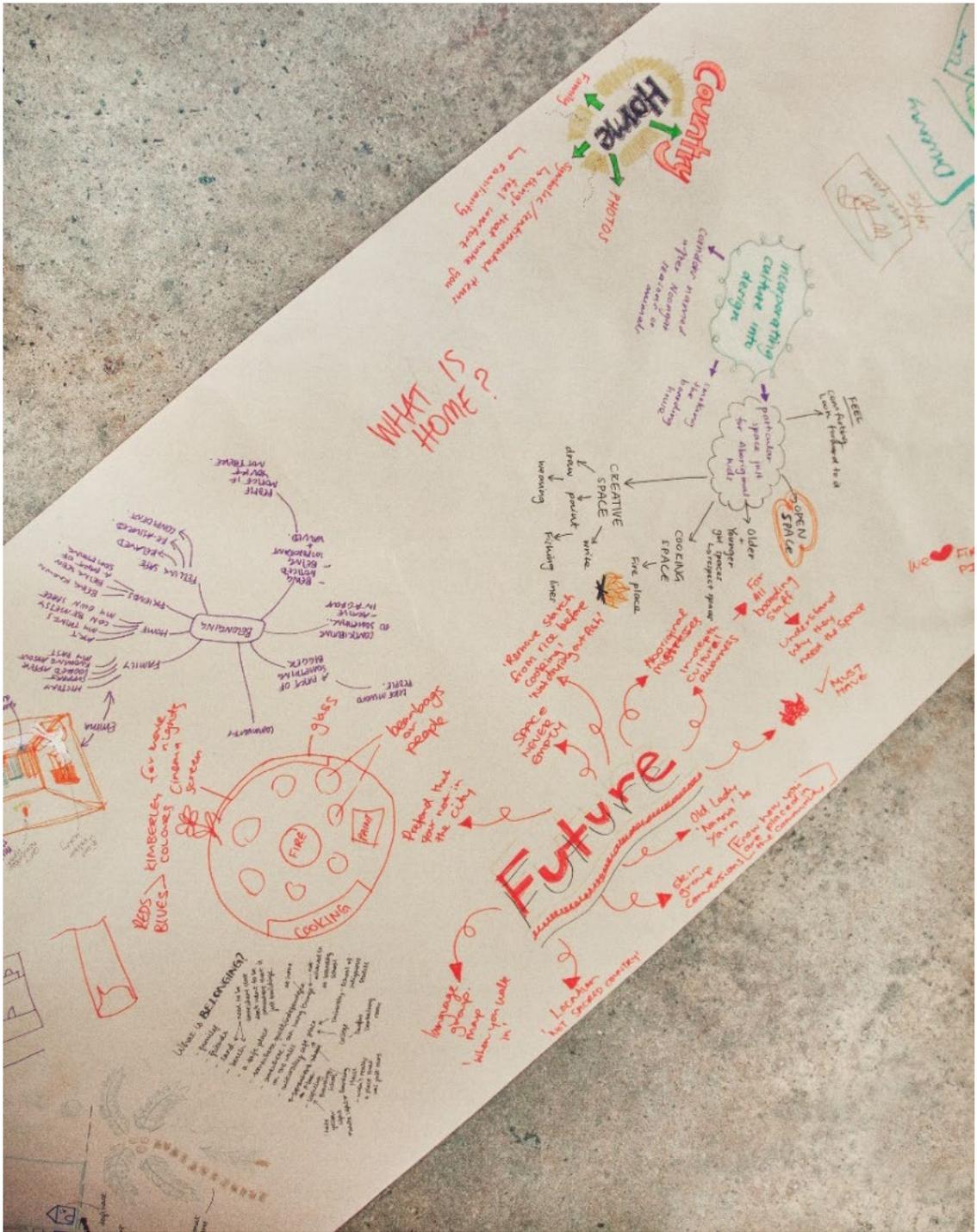


Figure 24: Participant drawings on the brown paper roll



Figure 25: Participant drawings on the brown paper roll

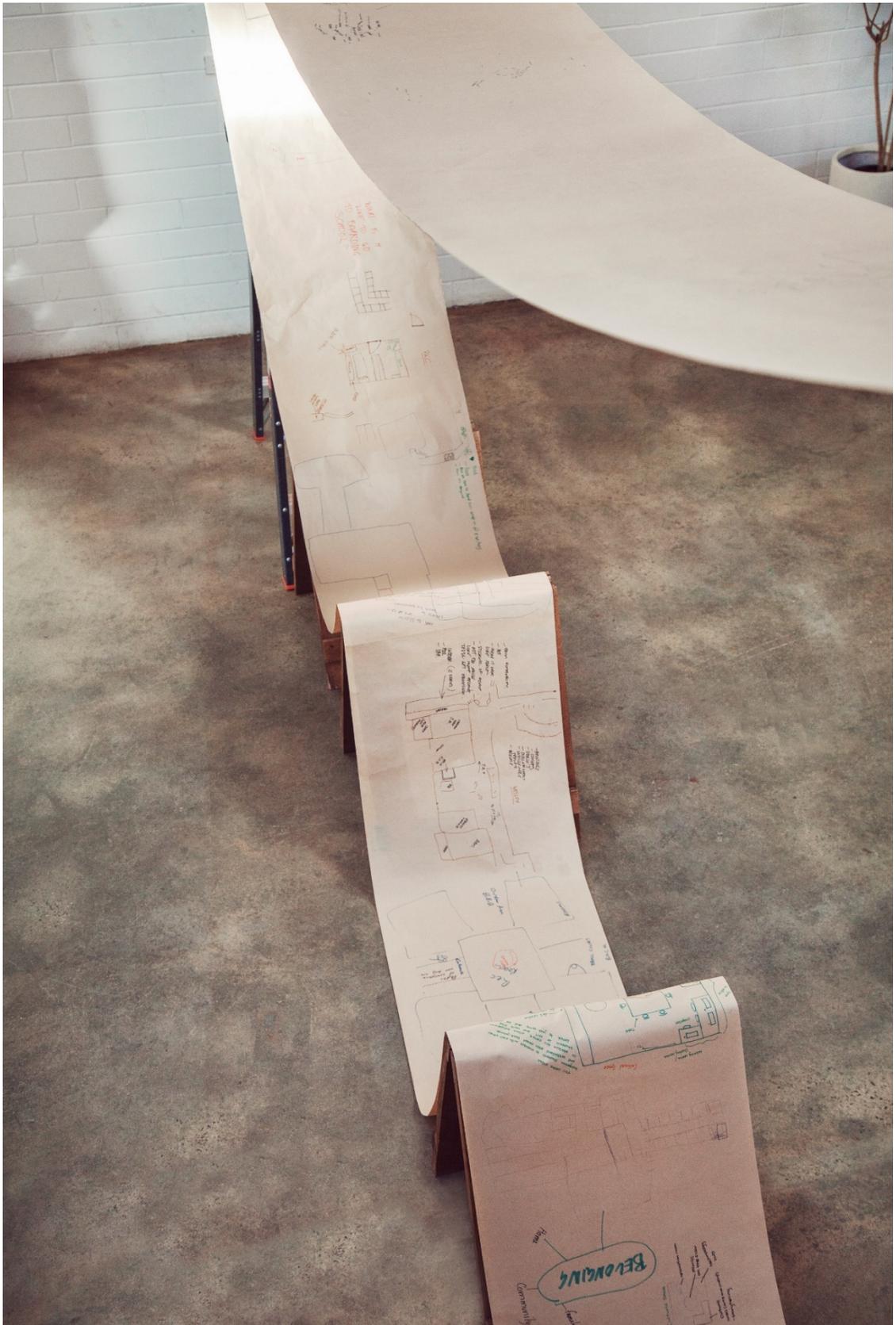


Figure 26: Showing the length of brown paper roll



Figure 27: Participant drawings



Figure 28: The brown paper roll

8.8 The feedback model for belonging

A spatial action overcomes conflicts, at least momentarily, even though it does not resolve them; it opens a way from everyday concerns to collective joy.

(Lefebvre, 1974, p. 222)

In bringing together all the findings from this research, a 'feedback model' for understanding the relationship between interior design and sense of belonging is proposed. Through the explicit and implicit signaling of certain behaviors and values by the interior architecture, sense of belonging can be understood in terms of a 'call and response' transaction between the built environment of boarding schools and the students who live within them. In other words, they are asked by the design of the buildings to 'fit in'. The participants of this research described it to be a predominantly one-way transaction, in which the environment communicates, and the students receive information.

In this section of the chapter, the idea of design as a verb is first explored in relation to the participant data and the existing theory. Then, a conceptualisation of the possible design actions that lead to sense of belonging is proposed. This leads to the proposal for a feedback model of belonging, which borrows the idea of 'call and response' in music for application in a design context. Out of the feedback model for belonging, it is proposed that place identity continually emerges. This is discussed next in relation to existing theory.

8.8.1 Interior design as a verb

The research suggests that there are many important considerations to be made in the initial design and construction of boarding schools, but that the potential role for interior design is not limited to the services provided by professionals. Rather, it seems that there is ongoing opportunity for boarding school staff and students to increase sense of belonging through interior design. The ideas presented here expand the notion of 'participatory design' beyond formal planning processes into the practice of design in every-day life. Extending this, the potential role of interior design in increasing a sense of belonging can be understood in three ways, which are illustrated through Table 27.

Table 26: Interior design from noun to verb

1) Not being the underlying challenge to sense of belonging:	
Summary:	Example data:
The first way that interior design can increase a sense of belonging is by not fundamentally challenging it in the first place. This is to do no harm, to not be the underlying reason for why people feel they do not belong. The design is not the source of a lack of belonging.	...we're really messing with them by putting them into these boarding environments without programs and support....In some ways, it is creating more damage. <i>Staff C 01</i>
2) Being a good fit for the students' spatial and social needs:	
Occupants should feel a sense of belonging within the building. The identity of the place is enmeshed with the students' identity, their needs are met, they can feel culturally safe. The design makes occupants feel good about themselves; they see their identity reflected in the environment and the environment is reflected in their identity; it is safe to be yourself in this place.	So, if we had a room where you felt safe, felt accepted and belong. I feel like it just needs to have a home feel. The vibe of welcome-ness and easy-ness. <i>Current D 01</i>
3) Responsive to the evolving spatial and social needs of students, a tool for self-actualization:	
The environment is involved in the ongoing decision making and problem solving that positively affects sense of belonging. When an external force causes a challenge to sense of belonging, interaction with the environment is a tool to reconfirm identity and connection. Design as self-expression, self-regulation, problem solving. The environment takes on the role of being adaptive and resilient, rather than the occupants.	I guess that freedom to put up what you want and to have your room the way you like it.... <i>Current B 02</i>

The progression through these three stages reflects the shift from thinking of interior space as a fixed object, and instead positions students as continual designers of that space. In this way, interior design can be thought of as a verb, not a noun.

8.8.2 Actions for design feedback

This thesis proposes that interior design is a verb. Within this general understanding, it is further proposed that there are multiple types of design actions that can contribute to sense of belonging. These are summarised here as 'Adaptive', 'Creative', 'Resistant', and 'Destructive'. These are shown in Table 28. While adaptive and creative design actions have been highlighted throughout the findings of this thesis as ways to increase sense of belonging, some attention is given here to the role of resistant and destructive design actions.

Table 257: Types of actions for design feedback

Examples of actions for design feedback			
Adaptive	Creative	Resistant	Destructive
Re-arranging furniture	Planting	Hidden mark-making	Removing features
Opening a window	Decorating	Sensory barriers	Replacing features
Dimming lights	Mapping connections	Makeshift cultural practice	Wear and tear
<p><i>...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'.</i></p> <p>Past C 01</p>	<p><i>Even if we did a wall full of bricks and you wrote your name in a pattern on a brick.</i></p> <p>Current C 01</p>	<p><i>She'd light incense every night and I'd hold her thing over the smoke alarm so that she could smoke out our room every night.</i></p> <p>Past C 01</p>	<p><i>You do not want carpet that is, like- we've got this ugly green colour. It's like baby's vomit. It's really gross, and it's been there for like, 50 years.</i></p> <p>Current B 02</p>

The role of space in feeling a sense of belonging was often described in this research in terms of resistant actions. Participant views in this data align with previous conclusions that 'resilience might enable a student to *survive* the challenges they encounter at school, resilience alone is not enough to ensure wellbeing or engagement or ultimately success for First Australian students' (O'Bryan, 2016, p. 285). Similarly, the data presented here indicates that the design of a building can be 'survived', something that truly does require a high level of resilience from the students. However, the built environment also has the potential to afford students with 'strategies of resistance, which leads to flourishing and self-determination' (O'Bryan, 2016, p. 285). This way of thinking about design frames the physical environment as a useful resource that could support students through difficult experiences, rather than as another challenge for which they must have an endless reservoir of resilience.

This frames students' resistant or destructive spatial actions as valid forms of participation in the continuing story of their built environment. This model extends the findings of O'Bryan (2016), who found that participants who were most positive about the impact of boarding school on their post-school life were those who constructed themselves as 'proactive' when confronted with challenges (p. 286). O'Bryan's framing of a continuum between resilience and resistance is similarly useful for the current data in that it seems students' sense of belonging was fortified by their design actions, or conversely, eroded by their inability to appropriate the environment.

In this project, Aboriginal students' resistance to the environment can be seen in design actions such as:

- Students taking couch cushions from the common area for 'sneaky sleepovers' with the older girls (Past C 01)
- Scratching initials under a desk to leave a mark (Current B 02)
- The students who tried to clear their bedrooms of 'bad spirits' by smoking the rooms with incense sticks, despite the risk of setting off the fire alarms (Past C 01)
- The student who re-arranged her desk so that she could see out the window, even though it was an uncomfortable way to sit: '*So I would just sit and turn myself 'cause I'm still going to look out this window*' (Past C 01)

- The decoration of cupboards and drawers in response to rules against sticking things to the walls: *'we are allowed to put them on our cupboards, though, because they're plastic like this'* (Current C 01)
- The use of sensory barriers to 'escape' from the environment: *'just put music in and relax and get all my thoughts out'* (Current E 01)
- Leaving the environment: *'You have to go outside in the middle of the bush where no one could hear you'* (Current B 02)

These resistances could be signals of the misalignment between Aboriginal students' needs and the spaces at boarding school. However, the actions also show that spatial responses were used as a form of adaptation and self-regulation. They indicate that students were interested in being involved with their surroundings, though they were often compelled to do this in impractical or prohibited ways, and that this involvement was perhaps a way of feeling some control in an otherwise uncontrollable situation. This way of thinking about interior design suggests that even when an underlying challenge to sense of belonging is not environmental, the ability to exert control over the environment could be an effective way for students to increase their sense of agency, and in turn their ability to manage the experience in a positive way. Importantly, these resistant actions also suggest a need to change our (academic and practicing designers) to change what we consider to be design.

8.8.3 The feedback model

People can give feedback to their built environment through everyday design actions. This model suggests a shift to the widely cited idea that: *'We shape our buildings; thereafter they shape us'* (Churchill, 1944). It suggests that people are not beneficiaries or victims to the decisions made by architects in the past, but that we continually shape and are shaped by buildings after their construction, in an ongoing reciprocal process. This is represented in Figure 29. Similarly, this extends the suggestion of Turner and Fichter (1972) – *'housing as a verb'* at the economic and policy scale to include the everyday interior design actions of housing residents.

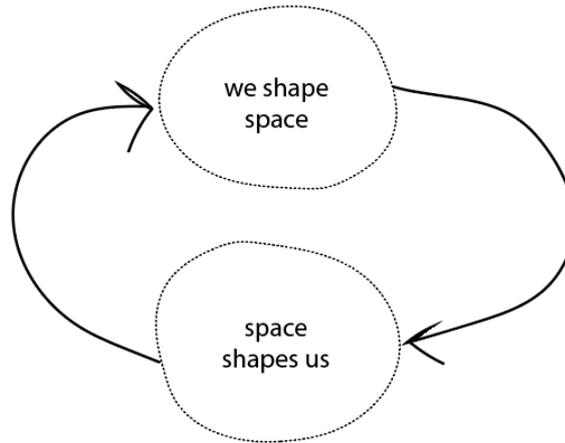


Figure 29: Ongoing reciprocal feedback between space and people.

The current data suggests that when students are active participants in the ongoing design of space, a feedback loop can be created in which information about identity and belonging flow both ways. In this version, the construction of a sense of belonging to a place goes beyond a comparison between self and place to instead determine level of 'fit'. This could be understood in terms of Lefebvre's theory of space as 'produced', in that the self and the place each actively respond to one another. This would mean that the information communicated about identity and belonging by boarding school spaces to students could be conversational rather than instructional. Further, stories could be constructed by student residents with both social and spatial information. For example, this could be achieved in a relatively tangible way through one participants' proposal for a wall in which each brick is decorated by a different student to include information about their identity, home, and family connections. In this way, sense of belonging becomes enmeshed with the built environment.

This is not to say that the initial design of architecture does not matter (interior and exterior), but that people are not passive subjects upon which design is permanently inflicted. The data of this study suggests that in cases where there is a poor fit between an existing built environment and an occupant, sense of belonging may still be increased through interior design. This is a key finding of the research and a point of differentiation from other studies concerning the impact of architecture on occupant wellbeing. It means that the decision making is not solely in the hands of professional

designers, as the role for interior design is not static and can be participated in by anyone. While this characteristic can often be a contributing factor to a lack of professional recognition for interior designers, here it can be viewed as a strength of the discipline. This may be reassuring to architects and interior designers who are concerned with the potential impact of their creations, but also suggests that there is a responsibility to consider the level to which buildings are suited to evolving over time. There is an inherent synergy between this and the interior design industry, in that there is usually a flexibility and impermanence to the design of interior spaces that is not inherent to larger scales of architecture. This indicates the increased consideration of interior design as a tool for creating sense of belonging, particularly in settings that accommodate many people in quick succession, such as boarding schools.

The concepts of place identity, third space, spatial voice, and feedback are brought together here in relation to the 'components of belonging' developed from the literature review in Chapter 2. Here (Figure 30), the environmental factors identified in the literature as having a potential impact on sense of belonging are located within the feedback model for belonging. This is organised according to Lefebvre's understanding of 'lived' (third) space as a product of perceived (first) space, and conceived (second) space, which here aligns with the call and response messaging between occupants and the environment. The creation of a participatory third space, the ability to have a spatial voice, and the feeding back of information about identity and belonging into the physical environment are framed as tools with which to influence the environmental components of belonging.

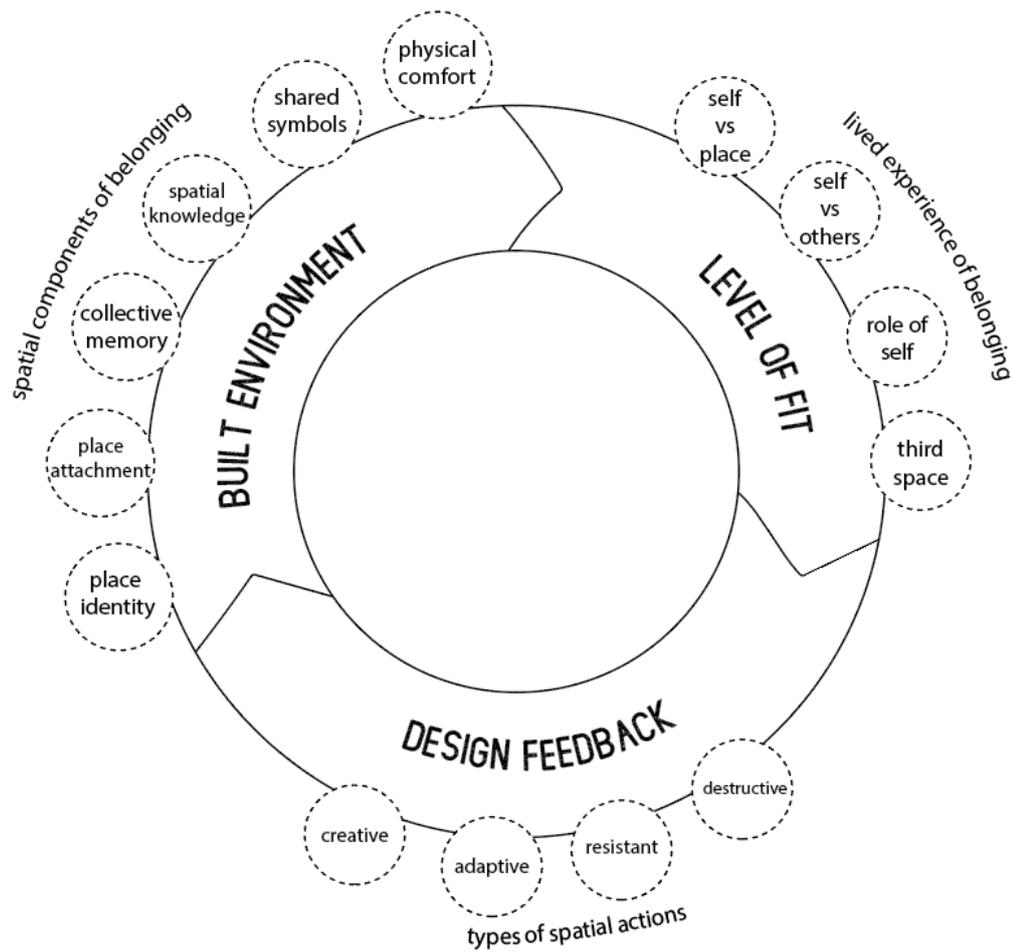


Figure 30: Feedback model for belonging

It is hypothesised here that student evaluation of clues for sense of belonging in the built environment can produce more negative effects when the information is passively consumed, than when engaged with actively. In the example discussed in the literature review of Facebook newsfeeds as signals for feedback about belonging, passive consumption of information was found to lead to lower life satisfaction, greater levels of self-comparison, and more negative feelings about such comparisons (Krasnova, Wenninger, Widjaja and Buxmann, 2013; Lee, 2014, Stronge, et al., 2015). Cues of exclusion on Facebook newsfeeds were found to lead to increased socially avoidant behaviour. While this idea has been explored in terms of the impact on different personality types (introverted and extroverted), there appears to be little

research to examine this pattern in relation to other complex factors such as those raised by participants in this project (i.e., race, culture, age, language, academic expectations, or relatedness). The current research suggests that a similar 'vicious cycle' can occur for anyone who is social excluded, and that there are signs of this phenomenon within the experience of living in a boarding school for Aboriginal students. As the literature suggests that increased active involvement in online newsfeeds can lead to decreased levels of exclusion, this research similar suggests that increased design actions can reduce feelings of alienation within built spaces.

In Figure 31, there are linear vertical and horizontal axis upon which the built environment could be evaluated, but these factors are also connected and adaptable through the process of everyday design feedback. This shows the cyclical feedback model as a layer over the grid of the four states of relatedness (Hagerty et al., 1993), in which the experiences of both connectedness and disconnectedness (noting that these two extreme examples may more commonly be a combination with elements of both) may be produced and reinforced through design feedback. This illustrates a role for both boarding school planners (in providing buildings which offer high levels of involvement, comfort, and sense of wellbeing) and for student residents (through participation in everyday design feedback). In summary, within a broader understanding of the social impact of built environments, the feedback model extends existing understandings for how a sense of belonging is produced by including a role for everyday design participation.

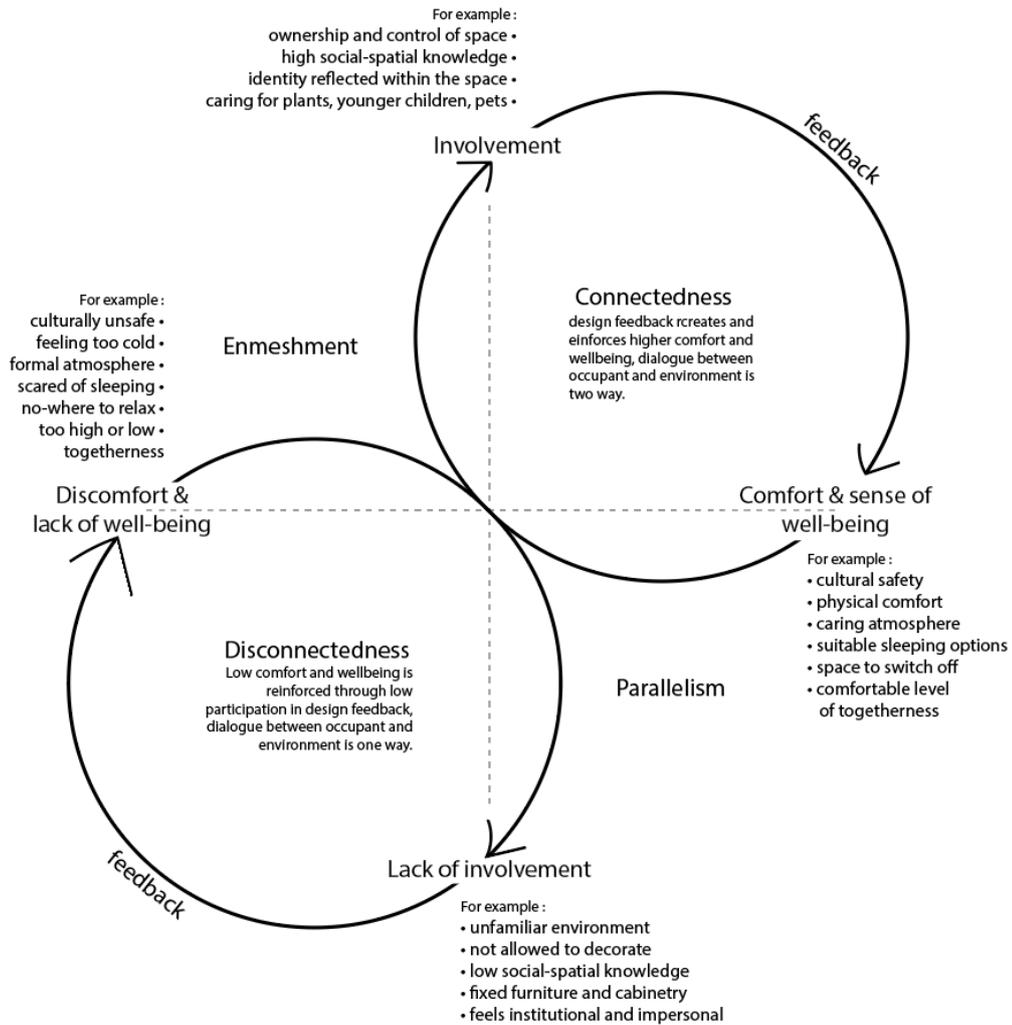


Figure 31: Feedback model with Hagerty et al. (1993) 'States of Relatedness'

8.8.4 Place identity emerges

Through a process of continual feedback between occupants' spatial voice and the messages contained within the built environment, place identity emerges. As Lefebvre (1974) understands it, it becomes a place that has been '*laboured on*' (p. 74). For Lefebvre, this aligns a space more closely with a natural phenomenon than a political act:

For many people, to describe something as a work of art is simply the highest praise imaginable. And yet, what a distance there is between a work of nature and art's intentionality! What exactly were the great cathedrals? The answer is that they were political acts.

(Lefebvre, 1974, p. 74)

The emergence of place identity through daily life is supported by Proshanksy's original theory on the subject (Chapter 2), which includes the view that place identity is not static (1978). As Proshanksy, Fabian, and Kaminoff (1983) observed, place identity 'grows out of direct experiences with the physical environment; these experiences in turn become modified and transformed by cognitive processes and the effects of still other subsequent direct experiences with the physical environment' (p. 62). In this way, it is possible for the physical characteristics of boarding schools to be 'continually woven' with the 'cognitive fabric we call place-identity', which the authors propose exert an influence over the 'assimilated values, norms, and attitudes germane to physical settings that define the person's day-to-day existence' (Proshanksy, Fabian, & Kaminoff, 1983, p. 62). As such, the suggestion from the findings of this research is that there is scope for changes in the place identity of boarding school architecture to be 'born gradually', as Lefebvre puts it, as a product of student lived experience.

8.9 Conclusion

When drawn together, the findings show a search for balance between autonomy and connection by the young people who participated in this project, an essentially human experience exemplified here through the concept of *belonging*. This balance is described by Mackay (2014) as 'the tension between our independence and our inter-dependence' (p. 2). The thematic relationships that connected space with sense of belonging highlighted the students' struggle to navigate routine and freedom, solitude and connection, stimulation and rest, and their different identities between home and school. Unlike the described current interior design of boarding schools, these tensions were not static. As described by one participant, '*it depends on the day*' (Current E 01). In response, the proposed

feedback model for designing in ways to foster belonging relies on the ongoing involvement of occupants in the space, so that the changing threads of individual needs and values can be continually reassembled within the collective environment. Participants were already engaged with the production of space in this way through resistant, adaptative, creative, and, sometimes, destructive actions. It is proposed that through a feedback model of design, boarding school architecture can go beyond the minimum requirement to simply 'not be an obstacle' to Aboriginal students' sense of belonging, past the safety of being 'a good place to be', and rather provide support at the higher level of being a malleable tool for self-actualisation. Therefore, a major outcome of this study is the proposed theoretical model for a 'call and response' feedback loop, through which interior design can be a self-determined tool for increasing sense of belonging.

Chapter 9. Conclusion

...it's not about the tutors and the scholarships cause there's plenty of tutors and scholarships. We're missing...the elephant in the room is the accommodation for me, and no one is looking at that, the boarding facilities have to be the answer.

(Staff C 01)

9.1 Introduction

In this chapter, the focus returns to the questions that initially led the research: is a sense of belonging an effective way to evaluate the design of boarding schools? And, what does a sense of belonging mean for Aboriginal students? This chapter presents a summary of the research findings, their meaning, and their potential application in practice (noting that 'practice' here also refers to the business of everyday life, in this case for Aboriginal students living in boarding schools). This project sought to investigate the possible relationship between the interior architecture of boarding schools and the level of 'belonging' felt by Aboriginal young people who live within them, primarily focusing on the experiences of young women. The participants' yarning and drawing offered a collection of snapshots into the many spatial experiences that can impact sense of belonging within a boarding school setting, suggesting that there is a role for interior design in increasing their sense of belonging and therefore education outcomes.

This study began as an exploration of the inequitable access to education which can be caused or exaggerated by the social experiences of student accommodation. Using a sense of belonging as the key reference point for success, this research presents Aboriginal young peoples' experiences of the interior design of Western Australian boarding schools. The thematic findings presented within this thesis are an outcome of research with fifty-two participants across seventeen yarns representing eight independent schools in Western Australia. Of the fifty-two participants, twenty-seven were current students (aged sixteen and over), eighteen were alumni who had graduated year twelve within ten years of their participation, and seven of whom were women with extensive experience working in a primary

support role for Aboriginal students in boarding school (one of whom identified as Aboriginal, specifically Koori). The methodology was Participatory Action Research (PAR) and methods were a combination of semi-structured yarning and drawing around a continuous roll of brown paper- a new method developed through the project. Using the Brown Paper Roll as a public sphere for participant communication, ideas, and yarns about belonging in boarding school were collected over the course of two school semesters. The typical cycles of action research were adapted in this project to form 'nested' spirals, ensuring that critical reflection and subsequent action were embedded at both micro and macro scales. In line with this, data were analysed cumulatively by participants within the yarns, as well as through thematic analysis by the researcher. These forms of analysis did not occur in a neutral and objective way, rather they interacted with one another throughout the data collection and through the inclusion of participatory measures within Braun and Clarke's (2006) six stages of thematic analysis.

Four major thematic findings emerged from the data, which relate student sense of self with place (Chapter 4: Place Identity), with others (Chapter 5: Social Atlas), with their role in the design of place (Chapter 6: Spatial Voice), and with ways in which different spaces allowed them to feel 'themselves' (Chapter 7: Third Space). The perspectives presented within these chapters (4-7) are not representative of a universal 'Aboriginal' experience of boarding school, and therefore do not offer a single solution for future designs. However, what was clear in the data are that Aboriginal student's experiences of belonging in boarding school could be impacted by the design of space, and that there were many spatial barriers to their sense of belonging in current boarding schools. Recognising this, a 'Feedback Model' for belonging was proposed in Chapter 8. This model combines existing theoretical knowledge about the role of space in the production of sense of belonging, informed by the data that the best way of increasing student sense of belonging is to afford them with the ability to give feedback to their surrounds through spatial actions. This model, along with ten actionable ideas from the participant yarning, have been summarised in a small booklet that can be shared within research and practice settings concerned with boarding school planning.

In the delivery of both equitable housing and accessible education in Australia there has been little to address each as being inherently connected for many young people. Access to 'appropriate, affordable, and secure' housing is described as a key social

determinant of physical and mental health (Australian Institute of Health and Welfare, 2018, p. 2). Education is similarly cited as a critical social determinant of health, with a two-way relationship existing between poor health and socio-economic status (p. 2). The Australian Institute of Health and Welfare (2018) 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 argument within this thesis is that the potential role of student accommodation in education settings is a critical link for programs and organisations concerned with increasing socio-economic opportunities for young people, and that they must therefore be similarly interested in the quality and experience of the provided living environment, where a large proportion of time will be spent.

In addition to answering the research question and objectives, this study offers two key contributions to research and practice: 'The Feedback Model' and the 'Brown Paper Roll'. The Feedback Model offers a way forward for increasing sense of belonging in any built environment in a way that is interactive for Aboriginal people (and for other users). The model acknowledges the impact of interior design on social experiences and the subsequent need for it to be informed by Aboriginal conceptions of space, without requiring that all design decisions be made perfectly from the beginning to be useful. In this way, the contribution of this thesis is different to other work relating to Aboriginal architecture in that it does not offer a culturally informed guide to designing space, which would be inappropriate given that the researcher is not Aboriginal and the participants did not represent a unified cultural group. Rather, the contribution from this study is that there are strategies for designing both existing and new spaces in ways that are culturally impressionable. This has significance for existing and older buildings which may have a negative place identity for Aboriginal people, suggesting that through design feedback, these places may be evolved to include new narratives about belonging for users. This is underpinned by the premise that some control must be surrendered to end users by leaders and planners, instead allowing occupants to conduct their own evaluation and adaptation for cultural suitability. This has application for many built environment contexts, but particularly those which, like boarding schools, accommodate a multi-cultural and constantly evolving end user group.

The Brown Paper Roll method similarly has a broad range of potential applications outside of this thesis. While there is clearly value for this tool in the current line of research (that pertaining to the lived experiences of space for Aboriginal young people), the method could be useful in any context identified as being able to benefit from a combination of visual and verbal communication, a sense of informality, continuity between otherwise separate groups, endorsement from prior participants, and in cases where it is expected that it may be difficult to build trust and engagement. This could include any research for which the goal is to approach serious or taboo topics in a way which is less threatening and isolating for participants, for whom the shared aspects of their experience are tangibly depicted by others. Similarly, these qualities recommend the method for research with mixed focus groups containing mixed communication abilities and styles. For example, in multidisciplinary contexts, with mixed age participants, with multi-cultural and multi-language groups, or simply in research for which there is a potential benefit to accessing visual information, but in which the participants may not be confident in their creative abilities. The Brown Paper Roll method may also be useful outside of an academic context, for example in commercial or creative settings which require collaboration between multiple stakeholders. Particularly, if this stakeholder engagement is being facilitated by someone outside of the community in focus.

9.2 Answering the question

In response to the original research problem: that the provision of scholarship funding for Aboriginal and Torres Strait Islander students to attend private boarding schools is (in itself) not a sufficient strategy to ensure positive education outcomes, the research question for the project was:

How can interior design increase a sense of belonging for Aboriginal and Torres Strait Islander young people living in Western Australian boarding schools?

The participant voices suggested that there is a role for interior design in increasing a sense of belonging, and in turn to positively affect education outcomes for Aboriginal young people. In regards to the first aim of this research; to increase 'overall engagement and retention, leading to greater participation and success in higher education in the long term', this research suggests that there is potential for the design

of spaces to have a positive impact. However, there were also themes in the data to suggest that this goal can dominate and restrict other ways of measuring success from being considered as valuable. Although this was initially the primary aim of the research, upon reflection of the data it seems that this should be secondary to the facilitation of a sense of belonging. The research objectives are responded to here.

1) To examine the concept of 'belonging' as a tool for evaluating the design of residential education settings;

This objective was fulfilled in the sense that the concept of belonging has been rigorously examined through theoretical inquiry (Chapter 2), data collection and analysis (Chapter 3), and the presentation of findings (Chapters 4-7). The participant voice from this project suggests that sense of belonging can be an effective reference point for evaluating the design of residential education settings. However, it also suggests that the idea cannot be employed as a static and consistent concept between different individuals or groups. Sense of belonging was not defined consistently between students, suggesting that methods for future research in these settings need to be reflexive to individual definitions, and considered on a case by case basis.

Overall, the findings here support the theme in the existing literature that sense of belonging is an appropriate tool for understanding the transitions and experiences of young people, as initially presented in the introduction (Chapter 1), and through the second part of the literature review (Chapter 2). This is further suggested by the success of this reference point in researching sense of belonging with Aboriginal residents of Western Australian boarding schools. The extended and meaningful descriptions of what a sense of belonging is (both visual and verbal) suggests that this idea resonated deeply with the participants. Notably, while spatial concepts did require (often extensive) explanation and examples, at no point was the concept of belonging indicated to need any further explanation. More broadly, the idea of 'belonging' as a measure for success could be a way of shifting focus from quantitative indicators such as year 12 attainment and academic performance that are often not representative of 'success' for Aboriginal students (Rogers, 2018). The findings from this research suggest that an alternative measure for the 'success' of education experiences could be the degree to which student engagement is at the cost of sense of belonging.

This research also showed that the concept of belonging could be a useful reference tool for evaluating a wider range of built spaces. In this case the focus was on boarding schools, however, there seems no reason why this would not translate to any number of other settings in which there is a social dimension to participation. This research suggests that design practitioners concerned with the social outcomes of their work (for example through human-oriented design) should also be 'belonging-oriented'. This goes deeper than satisfaction and functionality of occupants with a space, rather involving the contextual and personal factors that make up the lived experience of 'togetherness'. In short, the level to which people feel they belong could be a way of evaluating design success.

It was not an aim of this research to redefine belonging, or to pinpoint exactly how to measure it. Instead, the aim was to prioritise the emotional, intangible, soft, rich information that may be lost within a pre-determined definition. In line with consideration that Aboriginal and Torres Strait Islander peoples are not a monolithic group, it was inappropriate to impose a single measurable definition with the assumption that this will be relatable for all. Any attempt to quantify belonging or reduce it to a number was arguably in opposition to the prioritisation of participant voices, which were varied and complex. This position also aligns with the consideration of student participants as capable people with the internal tools (and the right) to explain their lives in relation to their own points of reference.

2) to identify elements of the interior design of Western Australian boarding schools which affect Aboriginal students' sense of belonging;

This objective was achieved through the yarning and drawing with participants (described in 3.4, presented in Chapter 4: Place identity, Chapter 5: Social atlas, Chapter 6: Spatial voice, Chapter 7: Third space), the participatory thematic analysis of the data (described in 3.6 Data analysis), and by reflecting on the themes in relation to existing literature (Chapter 8). As presented in Chapters 4-7, the ways in which interior design may affect the participants' sense of belonging came through in the following four main ways:

- Place Identity: Participants characterised the interior architecture of current boarding schools as institutional, square, and structured; which could negatively impact upon Aboriginal students' sense of

belonging. Student participants were concerned with the recent and long-term histories of the building sites.

- **Social Atlas:** Participants proposed increased flexibility and transitional options within the interior architecture to allow for a diverse range of settings and relationships, i.e. avoiding an 'all or nothing' approach to social interaction. Students reported social and spatial barriers to maintaining friendships with other Aboriginal students, which was a barrier to their sense of belonging.
- **Spatial Voice:** The role of interior architecture in creating a sense of belonging in boarding schools was largely described through the ongoing design activity afforded to students, described in this thesis as their 'spatial voice'.
- **Third Space:** Participants described the need for Aboriginal students to access spaces of cultural and social relief within predominantly white boarding schools, this can be broadly understood as the 'third space'. This theme includes the need for spatial support to switch off, and switch between different social settings.

The elements of interior design that affect student sense of belonging are not the same for each student. However, there was a common theme that the interior of the boarding house was perceived as being at odds with student descriptions for a space where they could be themselves.

3) and to propose a strategy for the interior design of future boarding schools that may encourage an increased sense of belonging.

The design elements identified as affecting student sense of belonging were synthesised into an overall strategy for designing for sense of belonging: the feedback model. As presented in the previous chapter, this model has three main phases that turn the 'call and response' transaction between students and the environment into a continuous reciprocal feedback loop. This allows students to feed information about their sense of identity and belonging back into the environment, and in turn positively inform the future call' that their sense of belonging fits in relation to.

The original intention of this research was to develop a comprehensive strategy for the design of future boarding schools that could provide clear direction for planners and leaders. However, through the yarning and drawing with participants it became clear that this would not be possible without over-simplifying the common characteristics and goals of boarding schools or the diversity of student needs within them. Fundamentally, this research indicated that young people living away from home have the critical thinking and communication skills to engage fully in design processes that affect their lives. Therefore, the proposed design strategy for future boarding schools is a conceptual model for student participation and feedback that allows them to steer design choices, within which some key design actions are also recommended.

Within the feedback model, there were many themes from the data which can be translated into tangible design actions. For the purposes of applying this to practice in an accessible form, a booklet of findings has been created from the synthesis of themes from the previous five chapters. This can be found in the appendix and is titled '10 ideas for the design of WA boarding schools'. The ten ideas presented in this booklet are outlined in Figure 32.



Figure 32: Title and the last page of resource

This list of items should not be thought of as a fixed strategy or a universally applicable ‘to do’ list for planners. Rather, it is intended as a starting point for practitioners to consider the interaction between the built environment and student sense of belonging.

Throughout this project, the idea of ‘practice’ has been considered in both professional and everyday contexts. Accordingly, the findings from the research are applicable to a variety of ‘practice’ settings; boarding school leaders, boarding school community and staff, design practitioners, policy writers, and the students themselves. However, the booklet of findings is intended primarily for people in a position to plan and affect change in boarding schools. Namely, school leaders, interior designers, architects, scholarship providers, and those managing funding for support programs and built environment projects. The intention of this is that the direction of information flows from the participants to those in positions of power to act on their ideas, and who might otherwise not have access to this perspective. It is suggested that the ideas in the booklet be used as a starting point for further dialogue with relevant student

groups on a case by case basis, including family and community voices. The design actions proposed in the booklet should also be considered in relation to the overall feedback model for belonging, in which student ongoing student input is a critical component.

9.3 Strengths of the research

This project has many qualities that distinguish it from other research into similar topics of interest. The greatest strength of the project was its ability to gather firsthand perspectives from Aboriginal students about what they think of their boarding schools in their own words. Importantly, findings in this research were in the participants' everyday style of expression. While many examples of clumsy communication by the researcher can be found in the yarning transcripts, this was mitigated, and even perhaps complimented, by the methodological measures which gave a sense of informality and low-pressure expectations to the situation. The informal, social, and creative nature of the research successfully undermined the potential power imbalance between the researcher and participants. In this way, the lack of scripted questions which sometimes resulted in un-polished or inarticulate communication by the researcher, could have contributed to the relaxed atmosphere, suggesting this to be a useful approach for inexperienced researchers. This could also be attributed to the researcher's similar age, intentionally casual attire, and the mutual contacts or experiences that sometimes helped to form a social connection with younger participants.

The creative focus, and the topic of interior design, may also have been constructed by participations as less serious than research projects concerned directly with academic or health outcomes. Arguably, there was a greater sense of freedom and informality in the sharing of experiences around the roll of brown paper compared with other methodological options such as interviews or surveys. Participation in the research did not require serious or eloquent communication styles, and importantly it did not resemble school or administrative work. In other words, the project was fun. It is possible that this had the benefit of encouraging some students to engage with the project who otherwise may not have felt comfortably agreeing to a formal interview with an outside researcher.

Through the participatory action research methodology, conversations about design and belonging could be initiated within schools throughout the project. This means that the outcomes advocated for from the data already have a foundation in practice. This is a common characteristic of action research and an additional strength of this project. While the findings of this research do contain some criticisms of current boarding school design, the focus is on future actions and the alignment of aspirations through strategic and practical design thinking. Overall, the proposals by participants for future boarding schools are optimistic, exciting, and importantly: achievable. This is evidenced by some student and community members initiating small design projects after participating in the research.

Another significant strength of the findings is that they are underpinned by a broad theoretical and practical foundation. While there is not a lot of literature that unites all key components of this topic: young people's experience of belonging; Aboriginal experiences of belonging; Aboriginal experiences of boarding school; Aboriginal conceptions of the space; and experiences of belonging in the built environment, individually these topics are well documented and understood in the existing literature. This means that although the thematic findings emerged inductively and were not restricted by theory, they are preceded by a strong base of existing knowledge that supports their validity.

The student perspectives in this research suggest that accommodation is an important component of education pathways for students who leave home to study. Beyond the direct application of these findings for increasing sense of belonging for Aboriginal students, this could have broader commercial implication for the education sector. Student participants of this research were frequently considerate of the experience of their non-Aboriginal peers, and especially of international exchange students with whom it was suggested they could relate to through their shared '*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 from university and had experienced different forms of tertiary student accommodation. This was sometimes also reflected in the discussions. Many similarities in the issues and successes of these two typologies were described.

Though the themes in this study are specific to the sample of participants involved, the underlying concepts could be applicable to student housing generally. Prior to the disruptions caused by Covid-19, the Australian student accommodation industry was proposed to be worth more than thirty-seven billion dollars, supporting over two hundred and forty thousand full time jobs (Deloitte, 2015; van Onselen, 2019). The provision of goods and services to international students has been widely thought of as a growing sector with a significant economic impact. As the potential impacts of Covid-19 on the student accommodation sector continue to unfold, what does seem to be clear is that the role for design and place in the future delivery of education will be under considerable scrutiny. Within this, consideration should be made as to role of accommodation design in ensuring safe, connected, and nurturing environments for students who have become accustomed to accessing their learning online. If the previous high rates of national and international student mobility do not quickly resume, the role of housing design for students who do need to live away from home to study will be even more important. It seems that there is an opportunity for student housing planners to re-position what they are offering residents in terms of the physical and social safety and, in turn, perhaps increase attraction and retention of students travelling for their education. This could include reassuring students that there are emotional and social experiences facilitated by the design of their accommodation to mitigate against the negative impacts of social isolation. The design of student accommodation that promotes sense of belonging based on an understanding of cultural conceptions of space is not only about creating socially just education opportunities but could also have a commercial and economic application.

Another strength of this research is the framing of student involvement with education as active rather than passive. Participation in education is often discussed in terms of 'attendance'. There are two common meanings of this word: 'to be present', and to 'deal with the business of'. From this project and others, it seems that the casual use of this term does not encapsulate the full experience of living time in a place in which there is no 'off' switch from school. Findings from this thesis suggest a need for greater consideration of the latter meaning of attendance, physical presence at boarding school is usually a product of a dramatic geographic relocation and a reconceptualisation of identity and belonging by students. This definition suggests responsibilities that require both attention and active orchestration. For residents of boarding schools, education settings are not simply 'attended', they are 'attended to'.

This way of thinking could be translated to the design of spaces that afford students with the increased ability to attend to their social and spatial needs, rather than merely being 'in attendance' of the building.

Finally, the findings from this research contribute to broader understandings about an absence of sense of belonging in Australian student housing. The themes highlight the potential impact of experiences associated with social isolation, such as loneliness, dislocation, homesickness, alienation, and culture shock. In this study, such feelings were exacerbated by institutional and anonymous accommodation that participants perceived to have transient and impersonal qualities. The experiences captured in this project offer a perspective on social isolation that may also be useful in designing and understanding responses to isolation caused by other circumstances, for example by current social distancing restrictions.

9.4 Future directions

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 will 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, and for young people generally. While this research has not directly dealt with any specific health or academic outcomes, a case is made for raising the quality and consideration of students' living arrangements with the aspirations of the programs that attract them. In response, several future research directions are suggested.

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 affective disorder (Molin, Møllerup, 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 for 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 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.

Future research could also consider the implications of the built environment of boarding school for students who have experienced trauma. This was not a focus of the current project and was not raised by student participants. O'Bryan (2016) indicates that there are no studies exploring the effect of trauma for Aboriginal and Torres Strait Islander boarding school students, and further suggests that negative school experiences can in fact compound past traumas, or become 'a source of trauma in its own right' (p. 209). This was similarly expressed by a staff participant in this study;

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

In this example, the physical environment was a possible contributing factor to (or source of) student trauma. O'Bryan further reflects that 'children who grow up in

violent or chaotic environments develop a hyper-awareness to their surroundings', which suggests an increased role for the built environment in these cases (O'Bryan, 2016, p. 211). Similarly, the present research did not engage deeply with the historical abuse of children within institutions such as boarding schools. This thesis did not collect data relating to this or speculate on the potential impact of this history within contemporary boarding schools, their physical design, and students' subsequent sense of belonging there. This is an important and complex factor for consideration in future research regarding the design of boarding schools, particularly 'heterotopic' boarding schools that are physically and culturally insular.

While there were many shared experiences amongst the participants of this research, it was also clear that the students' needs were diverse and evolving. Future design actions should be mindful of the speed with which the student cohorts they are designing for will develop, grow, and move on. The high level of reflexivity required by students to travel between home and school regularly, to move bedrooms multiple times per year, and to navigate busy daily schedules is a further challenge for designers to consider. To better understand the impacts of this pace of change in the environment, future studies could focus on the sustained spatial routines of students over a longer period.

Future actions informed by these findings should 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 residents of boarding schools and student accommodation in general. The argument of this thesis 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 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.

It is not the purpose of this thesis to provide guidance for best practice consultation or collaboration with Aboriginal stakeholders. However, through undertaking this project it was made clear that existing guidance is not always easily transferable to a

boarding school context, in which both the home communities of students and the local custodians have an important role to play in defining the students' experience of place (as well as the students' themselves). There is little in the way of a framework for navigating these roles, especially as an outsider. This point is important to note, as although it would be of considerable value for boarding schools to be designed with a high level of insider knowledge, it is currently unlikely that architecture and design practitioners will have insider status to all, if any, of the communities typically represented within boarding schools. This is perhaps a contributing factor to the lack of research on this topic so far, and an area which could benefit from future research attention.

Student accommodation of all kinds has in the past been siloed, exclusive, and didactic in terms of how they are accessed and experienced. As demonstrated by the voices of participants in this project, an awareness (even if at times a vague one) of a negative history associated with institutional accommodation can be a barrier to positive education experiences for some students. Many participants expressed concern that elements of assimilationist attitudes from the past were present in their current education, and that this could be reflected through the similarities (or direct continuation) of architecture since those times. Therefore, this research suggests that student accommodation of the future must be place specific, highly adaptive, acknowledge past histories, and be conducive to emotional attachment. The ability for living environments to engage students with meaningful stories about their education, and in turn be positively absorbed into the identity of young people is currently overlooked. Housing that encourages strong emotional connection could protect against sense of transience and assist in the creation of positive education narratives.

There are currently no standards for boarding school architecture or interior design beyond what is legally required for compliance with the Building Code of Australia. Recently, presenters to the Indigenous Education & Boarding Australia (IEBA) 2020 Symposium highlighted the need for an Indigenous boarding school standard. In the keynote presentation, Benveniste (2020) highlighted that there are similarly no standards for boarding schools to ensure the cultural needs of Aboriginal and Torres Strait Islander students are met, beyond what could be considered a minimum safety requirement. It was highlighted that the guides which are available are typically optional, and self-assessed (Benveniste, 2020). This also means that where boarding

schools are 'improving the ways they manage and promote Indigenous students' health and wellbeing', this work is largely 'rendered invisible' (McCalman et al, 2020, p. 11). Similarly, opt-in building standards that measure health, wellbeing, and sustainability, such as the 'Green Star Rating' and the 'WELL Certification', are not compulsory, and do not account for social factors such as sense of belonging and cultural safety. Conversely, voluntary commitments such as Reconciliation Action Plans do not necessarily include treatment of the built environment beyond actions to ensure 'visibility' of culture, such as display of flags, artwork, and celebration events. Future research could focus on synthesising these goals and standards for application in practice. In particular, the 'blank slate' of a new boarding school standard (Benveniste, 2020) may be an appropriate opportunity to bring these ideas together.

9.5 Conclusion

The main two outcomes from this research are the proposal for a feedback loop model of designing belonging, and to consider the notion of third space in the architecture of boarding schools. Students can feel a strong call to belong in boarding school that can create a perceived ultimatum between participation and sense of self. For Aboriginal students, this can echo the long historical pattern of forced choice between identity and education. In this research, themes from the data indicated that the built environment has the ability to reinforce the narrative of boarding school as a 'choice-less choice', but also to afford students with increased agency and control in their relationship with education.

From this research, it is suggested that the role for design professionals is to provide spaces that do not challenge sense of belonging in the first place, and to design with student autonomy and adaptation in mind. The role for school leaders and planners is to reduce administrative barriers to every-day designing, for example by allowing sticky tape and blu-tak on walls. Where safety and buildings codes are a concern, the role could also be to develop strategies to streamline approvals or reduce risk that allow for more participatory and flexible design. The role for staff in boarding schools is to facilitate the belonging opportunities in the interior design and be careful not to inhibit them. Finally, the role for students is to engage in the feedback loop by doing everyday interior design actions.

This research points to three central ideas for boarding school planners. Firstly, that the design of space matters in the first place. Second, that Aboriginal students have specific spatial needs for feeling a sense of belonging at boarding school that should be considered. Third, that interior design should be an ongoing and reciprocal everyday practice. Of the students' spatial needs, some were explicit and could be measured in a practical way. For example, the amount of access to outdoor space; whether or not there is a place for fire; if the temperature of bedrooms can be adjusted, if the students were allowed to *'chuck a nail in the wall'* (Current B 02). However, others were less tangibly assessed, and their absences were felt implicitly. For example, the ability for students to feel that they could 'be themselves', to not feel 'watched' or 'trapped', and for there to be a deeper sense of 'whole Aboriginality' to the environment beyond superficial symbols. These needs were harder to pinpoint, and circled the larger question of: is it okay to be myself here? So that students do not come up against a figurative (and literal) brick wall in response to this question, the data from this research suggests that there should be spatial methods to receive feedback about sense of belonging. In relation to Lefebvre's notion of space being socially produced, the call to belong should be a two-way conversation between student and environment: call and response, in which messages of belonging can be jointly constructed. In this way, interior design actions could give students space to be themselves.

Reference List

Every reasonable effort has been made to acknowledge the owners of copyright material. I would be pleased to hear from any copyright owner who has been omitted or incorrectly acknowledged.

- AIEF. (2015). *Compendium of best practice for achieving successful outcomes for Indigenous students in Australian boarding schools*, NSW: Australian Indigenous Education Foundation.
- Alawadhi, A., Chandrasekera, T., & Yang, C. (2014). The effect of spatial knowledge on sense of belonging in university/academic environments. *ARCC Conference Repository*. <https://doi.org/10.17831>
- Alexiou, K., Zamenopoulos, T & Alevizou, G. (2013). Valuing Community-Led Design. *AHRC Discussion Paper*. <http://oro.open.ac.uk/39646/>
- Anderson, I. (2016). *Belonging is the key to the future of the Indigenous youth*. <https://www.thestar.com/opinion/commentary/2016/04/20/belonging-is-the-key-to-the-future-of-indigenous-youth.html>. Accessed 25 July 2020.
- Anton, C., & Lawrence, C. (2014). Home is where the heart is: The effect of place of residence on place attachment and community participation. *Journal of Environmental Psychology*, 40, 451-461. <https://doi.org/10.1016/j.jenvp.2014.10.007>
- Arminio, J. L., & Hultgren, F. H. (2002). Breaking out from the shadow: The question of criteria in qualitative research. *Journal of College Student Development*, 43(4), 446–460. <https://psycnet.apa.org/record/2002-17472-002>
- Australian Bureau of Statistics. (2011). *Estimates of Aboriginal and Torres Strait Islander Australians, June 2011*. Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/mf/3238.0.55.001>
- Australian Government: Department of the Prime Minister and Cabinet. (2020). *Closing the Gap – Prime Minister Report 2017*. <https://ctgreport.niaa.gov.au/>
- Australian Government: Department of the Prime Minister and Cabinet. (2017). *Closing the Gap – Prime Minister Report 2017*. <https://www.niaa.gov.au/sites/default/files/reports/closing-the-gap-2017/index.html>
- Australian Institute of Aboriginal and Torres Strait Islander Studies. (2012). *Guidelines for Ethical Research in Australian Indigenous Studies*. Canberra.

- Australian Institute of Health and Welfare. (2016). *Australia's Health 2016*. Retrieved from <https://www.aihw.gov.au/reports/australias-health/australias-health-2016>
- Australian Institute of Health and Welfare. (2018). *Australia's Health 2018*. Australia's health series no. 16. AUS 221. Canberra: AIHW.
- Awan, F., & Gauntlett, D. (2013). Young People's Uses and Understandings of Online Social Networks in Their Everyday Lives. *YOUNG*, 21(2), 111–132. <https://doi.org/10.1177/1103308813477463>
- Babb, C, Robertson, D, & Curtis, C. (2019). Visualising travel and activity geographies of children's well-being. Three layers of spatial data using mixed methods. In *Visual Spatial Enquiry* (Edited by Creagh, R & McGann, S). London: Routledge.
- Baldwin, M., Keefer, L.A. (2019). Being Here and Now: The Benefits of Belonging in Space and Time. *Happiness Study*. <https://doi.org/10.1007/s10902-019-00214-7>
- Bargh, J. A., & Shalev, I. (2012). The substitutability of physical and social warmth in daily life. *Emotion (Washington, D.C.)*, 12(1), 154–162. <https://doi.org/10.1037/a0023527>
- Barney, K. (2018). Community gets you through: Success factors contributing to the retention of Aboriginal and Torres Strait Islander Higher Degree by Research (HDR) students. *Student Success*, 9, 13–23. <https://doi.org/10.5204/ssj.v9i4.654>
- Baum, A., & Davis, G. E. (1976). Spatial and Social Aspects of Crowding Perception. *Environment and Behavior*, 8(4), 527–544. <https://doi.org/10.1177/001391657684003>
- Baum, A., & Davis, G. E. (1980). Reducing the stress of high-density living: an architectural intervention. *Journal of personality and social psychology*, 38(3), 471–481. <https://doi.org/10.1037//0022-3514.38.3.471>
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497–529. <https://doi.org/10.1037/0033-2909.117.3.497>
- Beal, P. E. & Noel, L. (1980). What Works in Student Retention The Report of a Joint Project of the American College Testing Program and the National Center for Higher Education Management Systems. *Distributed by ERIC*. Clearinghouse, <https://eric.ed.gov/?id=ED197635>
- Bennett, B., Maar, M., Maniowabi, D., Moeke-Pickering, T., Trudeau-Peltier, D., & Trudeau, S. (2019). The Gaataa'aabing Visual Research Method: A Culturally Safe Anishinaabek Transformation of Photovoice. *International Journal of Qualitative Methods*. <https://doi.org/10.1177/1609406919851635>

- Benveniste, T., Dawson, D., & Rainbird, S. (2015). The Role of the Residence: Exploring the Goals of an Aboriginal Residential Program in Contributing to the Education and Development of Remote Students. *The Australian Journal of Indigenous Education*, 1, 1–10. <https://doi.org/10.1017/jie.2015.19>
- Bernardes, C., C Valery, P., Arley, B., Pratt, G., Medlin, L., & Meiklejohn, J. A. (2020). Empowering Voice through the Creation of a Safe space: An experience of Aboriginal Women in Regional Queensland. *International journal of environmental research and public health*, 17(5), 1476. <https://doi.org/10.3390/ijerph17051476>
- Bessarab, D., & Ng'Andu, B. (2010). Yarning About Yarning as a Legitimate Method in Indigenous Research. *International Journal of Critical Indigenous Studies*, 3(1), 37–50.
- Bhabha, H. K. (2004). *The Location of Culture*. Routledge. London.
- Bickman, L., Teger, A., Gabriele, T., McLaughlin, C., Berger, M., & Sunaday, E. (1973). *Dormitory Density and Helping Behavior*. *Environment and Behavior*, 5(4), 465–490. <https://doi.org/10.1177/001391657300500406>
- Biordi, D.L. and Nicholson, N.R. (2008), “Social isolation”, in Larsen, P.D and Lubkin, I.M. (Eds), *Chronic Illness: Impact and Interventions*, Jones and Bartlett Publishers, Sudbury, MA, pp. 85-115.
- Bishop, D. V. M. (1998). Development of the Children's Communication Checklist (CCC): A method for assessing qualitative aspects of communicative impairment in children. *Journal of Child Psychology and Psychiatry*, 39(6), 879–891. <https://doi.org/10.1017/S0021963098002832>
- Blackmore, J., Bateman, D., Loughlin, J., O'Mara, J., Aranda, G. (2011). Research into the connection between built learning spaces and student outcomes. *Education Policy and Research Division Department of Education and Early Childhood Development, Melbourne*. No. 22.
- Bobongie, F. (2017). Ngoelmun Yawar, Our Journey: The Transition and the Challenges for Female Students Leaving Torres Strait Island Communities for Boarding Schools in Regional Queensland. *The Australian Journal of Indigenous Education*, 46(2), 127–136. Cambridge Core. <https://doi.org/10.1017/jie.2017.5>
- Bowditch, C. (2019). *Your Own Kind of Girl*. Allen and Unwin. Sydney.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Breakwell, G. M. (1992). *Social Psychology of Identity and the Self Concept*. Surrey Seminars in Social Psychology. Surrey University Press in association with Academic Press.

- Brisbane Times. (2016). *QUT student faces \$200,000 bill in Facebook post racism row*. <https://www.brisbanetimes.com.au/national/queensland/qut-student-faces-200000-bill-in-facebook-post-racism-row-20160415-go7951.html>. Accessed 24 July, 2020.
- Brown, J.T., Volk, F., & Spratto, E.M. (2019). The Hidden Structure: The Influence of Residence Hall Design on Academic Outcomes. *Journal of Student Affairs Research and Practice*, 56, 267 - 283. <https://doi.org/10.1080/19496591.2019.1611590>
- Bryman, Alan. (2012). *Social Research Methods*. Oxford University Press, Oxford.
- Buchholz, E. S., & Catton, R. (1999). Adolescents' perceptions of aloneness and loneliness. *Adolescence*, 34(133), 203–213.
- Butterworth, I. (2000). *The Relationship Between the Built Environment and Wellbeing: A Literature Review*. 46.
- Cacioppo, J. T., Fowler, J. H., & Christakis, N. A. (2009). Alone in the crowd: the structure and spread of loneliness in a large social network. *Journal of personality and social psychology*, 97(6), 977–991. <https://doi.org/10.1037/a0016076>
- Campagna, G. (2016). Linking crowding, housing inadequacy, and perceived housing stress. *Journal of Environmental Psychology*, 45, 252–266. <https://doi.org/10.1016/j.jenvp.2016.01.002>
- Campbell, Nicole. (2017). There's no place like third place: starting to generalize the qualities and value of third places. *Housing and Society*, 44(3), 157-172, DOI: 10.1080/08882746.2017.1327137
- Catholic Education Commission. (2008). *Supporting Aboriginal Students Being Schooled Away From Home*. NSW Catholic School Authorities.
- Chilisa, B. (2019). *Indigenous research methodologies*. Sage Publications. Botswana.
- Chirarantoni, C. (2009). A study of new design concepts in student housing applied to the Italian u Urban context. *The 4th International Conference of the International Forum on Urbanism*.
- Choo, C. (2001). *Mission Girls: Aboriginal women on Catholic missions in the Kimberley, Western Australia, 1900-1950*. Crawley, W.A. University of Western Australia Press.
- Christie, P. (2013). Space, Place, and Social Justice. *Qualitative Inquiry*, 19(10), 775–785. <http://doi.org/10.1177/1077800413503796>
- Chung, F. (2016, February 4). *QUT embroiled in computer lab 'segregation' furore*. NewsComAu. <https://www.news.com.au/finance/work/careers/qut->

embroiled-in-segregation-furore/news-
story/dcdf3b57557aaf98576207f0ea7944e#.Inb5i

- Churchill, W. (1944). *Speech to the House of Commons* on October 28, 1944 (3).
- Clandinin, D. J. (2006). Narrative Inquiry: A Methodology for Studying Lived Experience. *Research Studies in Music Education*, 27(1), 44–54.
<https://doi.org/10.1177/1321103X060270010301>
- Cole, R. J., & Lorch, R. (2003). *Buildings, Culture and Environment: Informing Local and Global Practices*. Blackwell Publishing. Oxford.
- Commonwealth of Australia. (1997). *Bringing them Home: Report of the National Inquiry into the Separation of Aboriginal and Torres Strait Islander Children from Their Families*. Human Rights and Equal Opportunity Commission.
- Corbett, J. A. (1973). Student-Built Housing as an Alternative to Dormitories. *Environment and Behavior*, (5)4, 491-504.
<https://doi.org/10.1177/001391657300500407>
- Cornell, D., Gregory, A., Huang, F., & Fan, X. (2013). Perceived prevalence of teasing and bullying predicts high school dropout rates. *Journal of Educational Psychology*, 105(1), 138–149.
<https://doi.org/10.1037/a0030416>
- Coulehan, K. (2013). Family matters: Yolŋu women and children and rural–urban mobility. In Butler, K., Hansen, C. (Ed.), *Exploring Urban Identities and Histories*.
- Creigh, Robin and Sarah McGann. 2019. *Visual Spatial Enquiry*. London: Routledge. <https://doi-org.dbgw.lis.curtin.edu.au/10.4324/9781315182766>
- Crosnoe, R. (2011). *Fitting in, standing out: Navigating the social challenges of high school to get an education*. Cambridge University Press. University of Austen, Texas.
- Crouch, C., & Pearce, J. (2012). *Doing Research in Design*. A&C Black. London.
- Cuervo, H., Barakat, N., & Turnbull, M. (2015). *Youth, belonging and transitions: Identifying opportunities and barriers for Indigenous young people in remote communities*. Research Report No. 44.
<http://hdl.voced.edu.au/10707/369919>
- Daou, D., Huppertz, D. J., & Phuong, D. Q. (2015). *Unbounded: On the interior and interiority*. Cambridge Scholars Publishing. Newcastle.
- de Plevitz, L. (2007). Systemic Racism: The Hidden Barrier to Educational Success for Indigenous School Students. *Australian Journal of Education*, 51(1), 54–71. <https://doi.org/10.1177/000494410705100105>

- Deloitte. (2015). *Growth and opportunity in Australian International Education*. <https://www2.deloitte.com/au/en/pages/economics/articles/importance-universities-australias-prosperity.html> Accessed 25 July 2020
- Denzin, N. K., & Lincoln, Y. S. (2008). *Strategies of qualitative inquiry* (3rd ed.). Sage Publications. United States of America.
- Department of Education. (2012). *Tracks to Two-Way Learning*. Western Australia and Department of Training and Workforce Development. <https://trove.nla.gov.au/work/36253312>
- Department of Families, Housing, Community Services and Indigenous Affairs 2009a, *Footprints in Time, the Longitudinal Study of Indigenous Children: Key Summary Report from Wave 1*, FaHCSIA, Canberra.
- Department of Human Services. (n.d.). *Total Recipients and Number With Boarding Related Payment Entitlement in the 2013 Calendar Year, by Gender and Course Level - Unique Counts*. Retrieved by request from <https://www.humanservices.gov.au/customer/dhs/centrelink>
- Department of Human Services. (n.d.). *Total Recipients and Number With Boarding Related Payment Entitlement in the 2014 Calendar Year, by Gender and Course Level - Unique Counts*. Retrieved by request from <https://www.humanservices.gov.au/customer/dhs/centrelink>
- Department of Human Services. (n.d.). *Total Recipients and Number With Boarding Related Payment Entitlement in the 2015 Calendar Year, by Gender and Course Level - Unique Counts*. Retrieved by request from <https://www.humanservices.gov.au/customer/dhs/centrelink>
- Department of Human Services. (n.d.). *Total Recipients and Number With Boarding Related Payment Entitlement in the 2016 Calendar Year, by Gender and Course Level - Unique Counts*. Retrieved by request from <https://www.humanservices.gov.au/customer/dhs/centrelink>
- Department of the Prime Minister and Cabinet. (2020). *Closing the Gap: Prime Minister Report 2020*. Canberra: Commonwealth of Australia.
- Dudgeon, P, Wright, M, Paradies, Y, Garvey, D & Walker, I. (2010). The social, cultural and historical context of Aboriginal and Torres Strait Islander Australians, in N Purdie, P Dudgeon & R Walker (eds), *Working together: Aboriginal and Torres Strait Islander Mental Health and Wellbeing Principles and Practice*, Department of Health and Ageing, Canberra.
- Dudgeon, P., & Fielder, J. (2006). Third spaces within tertiary places: Indigenous Australian studies. *Journal of Community & Applied Social Psychology*, 16(5), 396–409. <https://doi.org/10.1002/casp.883>
- Eddie, R. (2016). *Queensland University of Technology worker launches \$250k racism claim*. Daily Mail Online. <https://www.dailymail.co.uk/news/article->

3430115/Queensland-University-Technology-worker-launches-250-000-racism-claim.html. Accessed 25 July 2020.

- Eisenberger, N. I. (2015). Social Pain and the Brain: Controversies, Questions, and Where to Go from Here. *Annual Review of Psychology*, 66(1), 601–629. <https://doi.org/10.1146/annurev-psych-010213-115146>
- Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? an fMRI study of social exclusion. *Science*, 302(5643), 290-2. Retrieved from <https://search-proquest-com.dbgw.lis.curtin.edu.au/docview/213588626?accountid=10382>
- Elrahman, A. S., & Mahmoud, R. A. (2016). The post-revolutionary effect on the urban harmony of Cairo's built environment in relation to the collective memory of the population: Urban context of the "after revolution" between contravention and elaboration. *Ain Shams Engineering Journal*, 7(4), 1099–1106. <https://doi.org/10.1016/j.asej.2015.10.007>
- English, S & Guerin, B. (2018). Boarding for Indigenous Australian Secondary Students: A Contextual Analysis of Four Options and their Best Features. *Journal of Australian Indigenous Issues*, 20(4), 31-53. <https://search.informit.com.au/fullText;dn=149734575657347;res=IELIND>
- Falahat, M. (2006). Sense of place and the factors shaping it. *Fine Arts Magazine*, 26.
- Farley, H., Birdsall-Jones, C., Datta, S., Birdsall-Jones, C., & Datta, S. (2018). The House Game: A visual method for eliciting Aboriginal housing parameters. In *Visual Spatial Enquiry* (Edited by Creagh., R & McGann., S). London: Routledge. <https://doi.org/10.4324/9781315182766-7>
- Fleeson, W., Malanos, A. B., & Achille, N. M. (2002). An intraindividual process approach to the relationship between extraversion and positive affect: Is acting extraverted as "good" as being extraverted? *Journal of Personality and Social Psychology*, 83(6), 1409–1422. <https://doi.org/10.1037/0022-3514.83.6.1409>
- Foucault, Michel (1971). *The Order of Things*. Vintage Books. New York. ISBN 978-0-679-75335-3.
- Foucault, Michel. (1977). *Discipline and Punish: The Birth of the Prison*. Pantheon Books. New York.
- Franck, L., Midford, R., Cahill, H., Buergelt, P. T., Robinson, G., Leckning, B., & Paton, D. (2020). Enhancing Social and Emotional Wellbeing of Aboriginal Boarding Students: Evaluation of a Social and Emotional Learning Pilot Program. *International Journal of Environmental Research and Public Health*, 17(3), 771. <https://doi.org/10.3390/ijerph17030771>
- Fredericks, B L., Adams, K., Finlay, S M., Fletcher, G., Andy, S., Briggs, L., Briggs, L., & Hall, R. (2011) Engaging the practice of yarning in Action Research.

Action Learning and Action Research Journal, 17(2), pp. 7-19.
<https://eprints.qut.edu.au/48053/>

- Fredericks, B. (2009). There is nothing that Identifies me to that Place: Indigenous Women's Perceptions of Health Spaces and Places. *Cultural Studies Review*, 15(2), 29-44. <https://doi.org/10.5130/csr.v15i2.2036>
- Gaztambide-Fernández, R. (2009). What Is an Elite Boarding School? *Review of Educational Research*, 79(3), 1090-1128.
<https://doi.org/10.3102/0034654309339500>
- Geia, L. K., Hayes, B., & Usher, K. (2013). Yarning/Aboriginal storytelling: Towards an understanding of an Indigenous perspective and its implications for research practice. *Contemporary Nurse*, 46(1), 13–17.
<https://doi.org/10.5172/conu.2013.46.1.13>
- Gelormino, E., Melis, G., Marietta, C., & Costa, G. (2015). From built environment to health inequalities: An explanatory framework based on evidence. *Preventive Medicine Reports*, 2, 737–745.
<https://doi.org/10.1016/j.pmedr.2015.08.019>
- Gieryn, T. F. (2000). A Space for Place in Sociology. *Annual Review of Sociology*, 26(1), 463–496. <https://doi.org/10.1146/annurev.soc.26.1.463>
- Giles, L. C., Metcalf, P. A., Glonek, G. F. V., Luszcz, M. A., & Andrews, G. R. (2004). The Effects of Social Networks on Disability in Older Australians. *Journal of Aging and Health*, 16(4), 517–538.
<https://doi.org/10.1177/0898264304265778>
- Goodenow, C. (1993). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *The Journal of Early Adolescence*, 13(1), 21–43. <https://doi.org/10.1177/0272431693013001002>
- Graham, L., Gosling, S & Travis, C. (2015). The Psychology of Home Environments: A Call for Research on Residential Space. *Perspectives on psychological science: a journal of the Association for Psychological Science*, 10, 346-56.
<https://doi.org/10.1177/1745691615576761>
- Grant, E. (2011a). *Ceduna Aboriginal Children and Family Centre: Indigenous design considerations*. Report to Department of Transport, Energy and Infrastructure (South Australia), Adelaide.
- Grant, E. (2011b). *Indigenous design considerations in the design of the Northern Territory Secure Facilities PPP Project*. Report to Capella Capital Group.
- Grant, E. (2011c). *Christies Beach Aboriginal Children and Family Centre: Indigenous Design Considerations*. Report to Department of Transport, Energy and Infrastructure (South Australia). Department of Education and Children's Services, 84p.

- Grant, E. (2011d). *Whyalla Aboriginal Children and Family Centre: Indigenous Design Considerations*. Report to Department of Transport, Energy and Infrastructure (South Australia). Department of Education and Children's Services. 86p.
- Grant, E. (2016). The architecture of detention: why design matters, in 'Dossier - Reporting from the (Australian) front: Housing in Extremis' (edited by Stead, N. & Greenop, K.), *Architecture Australia*, 105(5): 49-50.
- Grant, E. (2019). *Indigenous design considerations: New Whyalla Secondary School Whyalla, South Australia*. Commissioned by Cox Architecture and Thomson Rossi Architects.
- Grant, E., Colbung, M. and Green, I. (2015). *Architecture for Aboriginal Children and Families*. The University of Adelaide, Adelaide.
- Grant, E., Greenop, K., Refiti, A. L., & Glenn, D. J. (2018). *The Handbook of Contemporary Indigenous Architecture*. Springer Singapore. 10.1007/978-981-10-6904-8
- Grant, E., Lulham, R & Naylor, B. (2017). The Use Of Segregation For Children In Australian Youth Detention Systems: An Argument For Prohibition. *Advancing Corrections Journal*. 3. 117-136.
- Gray, D. (2014). *Doing Research in the Real World*, 3rd edition. Sage Publications. London.
- Guenther, J & Osborne, S. (2020). Choice-less Choice for Rural Boarding Students and their Families: *Australian and International Journal of Rural Education*. 30. <https://journal.spera.asn.au/index.php/AIJRE/issue/view/35>
- Guenther, J. (2015). Sustainable Learning Environments in remote Australia. *Sustainable Learning Ecologies Colloquium*. University of the Free State, Bloemfontein.
- Guenther, J., Disbray, S., Benveniste, T., & Osborne, S. (2017). 'Red dirt' schools and pathways into higher education. *Indigenous Pathways, Transitions and Participation in Higher Education: From Policy to Practice*, 251–270. https://doi.org/10.1007/978-981-10-4062-7_15
- Guenther, J., Harrison, N. & Burgess, C. Special issue. Aboriginal voices: Systematic reviews of indigenous education. *Aust. Educ. Res.* 46, 207–211 (2019). <https://doi.org/10.1007/s13384-019-00316-4>
- Güney, Y. I. (2007). Type and typology in architectural discourse. *BAÜ FBE Dergisi*, 9(1), 3–18. <http://fbe.balikesir.edu.tr/dergi/20071/BAUFBE2007-1-1.pdf>
- Hafen, C. A., Laursen, B., Burk, W. J., Kerr, M., & Stattin, H. (2011). Homophily in stable and unstable adolescent friendships: Similarity breeds

constancy. *Personality and Individual Differences*, 51(5), 607–612. <https://doi.org/10.1016/j.paid.2011.05.027>

- Hagerty, B & Patusky, K. (1995). Developing a Measure Of Sense of Belonging. *Nursing research*. 44. 9-13. 10.1097/00006199-199501000-00003.
- Hagerty, B. M., Lynch -Sauer, J., Patusky, K.L. and Bouwsema, M. (1993), An Emerging Theory of Human Relatedness. *Journal of Nursing Scholarship*, 25, 291-296. doi:10.1111/j.1547-5069.1993.tb00262.x
- Hallett, J., Held, S., McCormick, A., Simonds, V., Real Bird, S., Martin, C., Simpson, C., Schure, M., Turnsplenty, N., & Trottier, C. (2017). What Touched Your Heart? Collaborative Story Analysis Emerging From an Apsáalooke Cultural Context. *Qualitative health research*, 27(9), 1267–1277. <https://doi.org/10.1177/1049732316669340>
- Hamilton, P. (1973). *The Environment and Social Stress in a Traditionally Orientated Aboriginal Society*, Paper based on presentation to the 25th World Mental Health Congress – Cultures in Collision, Sydney. Department of Architecture, University of Sydney.
- Hammond, C., Gifford, W., Thomas, R., Rabaa, S., Thomas, O., & Domecq, M.-C. (2018). Arts-based research methods with indigenous peoples: an international scoping review. *AlterNative: An International Journal of Indigenous Peoples*, 14(3), 260–276. <https://doi.org/10.1177/1177180118796870>
- Hansen, W. B., & Altman, I. (1976). Decorating Personal Places: A Descriptive Analysis. *Environment and Behavior*, 8(4), 491–504. <https://doi.org/10.1177/001391657684001>
- Hartl, A. C., Laursen, B., & Cillessen, A. H. N. (2015). A Survival Analysis of Adolescent Friendships: The Downside of Dissimilarity. *Psychological Science*, 26(8), 1304–1315. <https://doi.org/10.1177/0956797615588751>
- Hayaty, H., & Sakineh, S. (2015). Identifying The Factors Of Sense Of Belonging To A Place In Traditional Textures A Case Study Of Traditional Texture In Dezful City. *Cumhuriyet Science Journal*, 36, 1255-1269.
- Haynes, M., O'Rourke, T., Nash, D., Baffour, B., York, S., Chainey, C., Betros, G, & Memmott, P. (2019). Aboriginal and Torres Strait Islander preferences for healthcare settings: effective use of design images in survey research. *Australian Health Review*, 44(2), 222-227. <https://doi.org/10.1071/AH18196>
- Healy, M. (2015). 'We're just not friends anymore': Self-knowledge and friendship endings. *Ethics and Education*, 10(2), 186–197. <https://doi.org/10.1080/17449642.2015.1051857>

- Heilweil, M. (1973). The Influence of Dormitory Architecture on Resident Behavior. *Environment and Behavior*, 5, 377 - 412. <http://dx.doi.org/10.1177/001391657300500402>
- Henchy, A.M., Cunningham, J.D., & Bradley, K.D. (2009). *Measuring Latino Students Perceptions of School Belonging: A Rasch Measurement Application*.
- Heppell, M. (ed) 1979, *A Black Reality: Aboriginal Camps and Housing in Remote Australia*, Australian Institute of Aboriginal Studies (AIAS), Canberra.
- Hewitt-Taylor, J. (2001). Use of constant comparative analysis in qualitative research. *Nursing Standard (Royal College of Nursing (Great Britain) : 1987)*, 15, 39–42. <https://doi.org/10.7748/ns2001.07.15.42.39.c3052>
- Hickman, P. (2013). "Third places" and social interaction in deprived neighbourhoods in Great Britain. *Journal of Housing and the Built Environment*, 28(2), 221-236. Retrieved July 24, 2020, from www.jstor.org/stable/42636241
- Hope, T. and Hough, M. (1988). *Area, Crime and Incivility: A Profile from the British Crime Survey*, in T. Hope and M. Shaw (eds) *Communities and Crime Reduction*, London: HMSO.
- Hopkins, K. D., Taylor, C. L., & Zubrick, S. R. (2018). Psychosocial resilience and vulnerability in Western Australian Aboriginal youth. *Child Abuse & Neglect*, 78, 85–95. <https://doi.org/10.1016/j.chiabu.2017.11.014>
- Hund, A. M., & Minarik, J. L. (2006). Getting From Here to There: Spatial Anxiety, Wayfinding Strategies, Direction Type, and Wayfinding Efficiency. *Spatial Cognition and Computation*, 6(3), 179–201. https://doi.org/10.1207/s15427633scc0603_1
- Ijzerman, H., Gallucci, M., Pouw, W., Weißgerber, S., Van Doesum, N & Williams, K. (2012). Cold-blooded loneliness: Social exclusion leads to lower skin temperatures. *Acta psychologica*, 140, 283-8. [10.1016/j.actpsy.2012.05.002](https://doi.org/10.1016/j.actpsy.2012.05.002).
- Isaacs, A. N., Pepper, H., Pyett, P., Gruis, H. A., Waples-Crowe, P., & Oakley-Browne, M. A. (2011). 'What You Do is Important But How You Do it is More Important'. *Qualitative Research Journal*, 11(1), 51–61. ProQuest Central. <https://doi.org/10.3316/QRJ1101051>
- Jackson, M. (1991). The cross-cultures of Cross-cultural Thinking. *Self, Place & Imagination: Cross-Cultural Thinking in Architecture* (Edited by Akkach, S., Fung, S. & Scriver, Peter). 2nd Symposium, Centre for Asian and Middle Eastern Architecture. The University of Adelaide, Australia.
- Jackson, M. (1999). Landscape/representation/text: Craig Clunas's Fruitful Sites. *Studies in the History of Gardens & Designed Landscapes*, 19(3-4), 302-313, DOI: 10.1080/14601176.1999.10435580

- Jensz, F. (2010). Controlling marriages: Friedrich Hagnauer and the betrothal of Indigenous Western Australian women in colonial Victoria. *Aboriginal History*, 34.
- Johnson, A., Becker, J., Craig, E., Gilchrist, E & Haigh, M. (2009). Changes in Friendship Commitment: Comparing Geographically Close and Long-Distance Young-Adult Friendships. *Communication Quarterly*, 57, 395-415. 10.1080/01463370903313430.
- Kaushal, Ashish. (2020). *Council Post: Why Belonging Is Good For Business—And 3 Ways To Get There*. (n.d.). Retrieved 23 July 2020, from <https://www.forbes.com/sites/forbesbusinesscouncil/2020/02/06/why-belonging-is-good-for-business-and-3-ways-to-get-there/#7c2b38636e86>
- Kemmis, S., McTaggart, R., & Nixon, R. (2014). *The Action Research Planner: Doing Critical Participatory Action Research*. Springer, Singapore. https://doi.org/10.1007/978-981-4560-67-2_1
- Keys, C. (1996). Defining Single Aboriginal Women's Housing Needs in Central Australia: Dealing with Issues of Culture, Gender and Environment. *Architectural Theory Review*, 1(1), 69-77. <https://doi.org/10.1080/13264829609478263>
- Keys, C., Memmott, P. (2014). Translating the Design of Behaviour Settings for Aboriginal Well-Being. *Society of Architectural Historians, Australia and New Zealand*, 31. <https://doi.org/10.1080/13264826.2017.1316752>
- Keys, C., Steele, W. (2015). Interstitial Space and Everyday Housing Practices. *Housing, Theory and Society*, 32(1). <https://doi.org/10.1080/14036096.2014.938866>
- Kiddle, R., Stewart, P., & O'Brien, K. (2018). *Our Voices: Indigeneity and Architecture*. ORO Editions, Novato, Canada.
- Kim Elston, J., Saunders, V., Hayes, B., Bainbridge, R., & McCoy, B. (2013). Building Indigenous Australian research capacity. *Contemporary Nurse*, 46(1), 6–12. <https://doi.org/10.5172/conu.2013.46.1.6>
- Klem, N-R., Kent, P., Smith, A., Dowsey, M., Fary, R., Schutze, R., O'Sullivan, P., Choong, P & Bunzli, S. (2020). Satisfaction after total knee replacement for osteoarthritis is usually high, but what are we measuring? A systematic review. *Osteoarthritis and Cartilage Open*. 100032. 10.1016/j.ocarto.2020.100032.
- Koch, T. (1994). Establishing rigour in qualitative research: The decision trail. *Journal of Advanced Nursing*, 19, 976–986. doi:10.1111/j.1365-2648.1994.tb01177.x
- Korpershoek, H., Canrinus, E. T., Fokkens-Bruinsma, M., & de Boer, H. (2019). The relationships between school belonging and students' motivational, social-emotional, behavioural, and academic outcomes in secondary education: A

meta-analytic review. *Research Papers in Education*, 1–40.
<https://doi.org/10.1080/02671522.2019.1615116>

Kovach, M. (2009). *Indigenous methodologies: Characteristics, conversations, and contexts*. University of Toronto Press.

Krasnova, Hanna & Wenninger, Helena & Widjaja, Thomas & Buxmann, Peter. (2013). Envy on Facebook: a hidden threat to users' life satisfaction? *In: Proceedings of the 11th International Conference on Wirtschaftsinformatik (WI2013)*. Universität Leipzig, Germany.
<http://dx.doi.org/10.7892/boris.47080>

Kurzban, Robert & Leary, Mark. (2001). Evolutionary Origins of Stigmatization: The Functions of Social Exclusion. *Psychological Bulletin*, 127(2), 187-208.
<https://doi.org/10.1037/0033-2909.127.2.187>

Kvale, S., & Brinkmann, S. (2009). *InterViews: Learning the craft of qualitative research interviewing* (2nd ed.). Sage Publications, Inc.

Kym, T., Bronwyn, E., Kirkham, R., & Louka, P. (2014). Remote Indigenous Students: Raising their aspirations and awareness of tertiary pathways. *Australian and International Journal of Rural Education*, 24(2), 23-35.
<https://search.informit.com.au/documentSummary;dn=641039926801720;res=IELIND>

Lamb, S., Helm, S. (2011). Closing the school completion gap for Indigenous students. *Closing the Gap*. Clearinghouse, Resource sheet no. 6.
<https://eric.ed.gov/?id=ED516158>

Lambert, N. M., Stillman, T. F., Hicks, J. A., Kamble, S., Baumeister, R. F., & Fincham, F. D. (2013). To Belong Is to Matter: Sense of Belonging Enhances Meaning in Life. *Personality and Social Psychology Bulletin*, 39(11), 1418–1427. <https://doi.org/10.1177/0146167213499186>

Larkins, S., Page, R., Panaretto, K., Mitchell, M., Alberts, V., McGinty, S & Veitch, C. (2011). The transformative potential of young motherhood for disadvantaged Aboriginal and Torres Strait Islander women in Townsville, Australia. *The Medical Journal of Australia*, 194, 551-5. 10.5694/j.1326-5377.2011.tb03100.x.

Lee, M-S., Lee, J., Park, B-J & Miyazaki, Y. (2015). Interaction with indoor plants may reduce psychological and physiological stress by suppressing autonomic nervous system activity in young adults: A randomized crossover study. *Journal of physiological anthropology*, 34, 21. 10.1186/s40101-015-0060-8.

Lee, S. (2014). How do people compare themselves with others on social network sites?: The case of Facebook. *Computers in Human Behavior*, 32, 253–260. 10.1016/j.chb.2013.12.009.

- Lefebvre, H. (1991). *The Production of Space*. Blackwell. Oxford.
- Leitch, R. (2008). Creatively researching children's narratives through images and drawings. In P. Thomson (Ed.), *Doing Visual Research with Children and Young People* (pp. 37-58). New York: Routledge.
- Lewicka, M. (2011). Place Attachment: How Far have We Come in the Last 40 Years? *Journal of Environmental Psychology*, 31, 207-230. 10.1016/j.jenvp.2010.10.001.
- Liebenberg, L., Jamal, A., & Ikeda, J. (2020). Extending Youth Voices in a Participatory Thematic Analysis Approach. *International Journal of Qualitative Methods*, 19. <https://doi.org/10.1177/1609406920934614>
- Lin, Y-W & Bratton, S. C. (2015). A meta -analytic review of child -centered play therapy approaches. *Journal of Counseling & Development*, 93(1), 45–58. <https://doi.org/10.1002/j.1556-6676.2015.00180.x>
- Lincoln, Y., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications. Newbury Park.
- Literat, I. (2013). “A Pencil for your Thoughts”: Participatory Drawing as a Visual Research Method with Children and Youth. *International Journal of Qualitative Methods*, 12(1), 84–98. <https://doi.org/10.1177/160940691301200143>
- MacDonald, G & Leary, M. (2005). Why Does Social Exclusion Hurt? The Relationship Between Social and Physical Pain. *Psychological Bulletin*, 131, 202-223. <https://doi.org/10.1037/0033-2909.131.2.202>
- Macdonald, M.-A., Gringart, E., Kessar, T. N., Cooper, M., & Gray, J. (2018). A 'better' education: An examination of the utility of boarding school for Indigenous secondary students in Western Australia: *Australian Journal of Education*. <https://doi.org/10.1177/0004944118776762>
- Mackay, H. (2014). *The Art of Belonging*. Pan Macmillan Australia, Sydney.
- Mahar AL, Cobigo V, Stuart H. (2013). Conceptualizing belonging. *Disabil Rehabil*, 35(12), 1026-1032. doi:10.3109/09638288.2012.717584
- Malone, G., Pillow, D & Osman, A. (2012). The General Belongingness Scale (GBS): Assessing achieved belongingness. *Personality and Individual Differences*, 52, 311-316. 10.1016/j.paid.2011.10.027.
- Mandel, D. R., Baron, R. M., & Fisher, J. D. (1980). Room Utilization and Dimensions of Density: Effects of Height and View. *Environment and Behavior*, 12(3), 308–319. <https://doi.org/10.1177/0013916580123002>
- Mander, D. (2012). The transition experience to boarding school for male Aboriginal secondary school students from regional and remote communities across

Western Australia. *Theses: Doctorates and Masters*.
<https://ro.ecu.edu.au/theses/521>

- Martin, K & Mirraboopa, B. (2003) Ways of knowing, being and doing: A theoretical framework and methods for indigenous and indigenist research. *Journal of Australian Studies*, 27(76), 203-214, DOI: 10.1080/14443050309387838
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396. <https://doi.org/10.1037/h0054346>
- Mayeda, D. T., Keil, M., Dutton, H. D., & Ofamo'Oni, I.-F.-H. (2014). "You've Gotta Set a Precedent": Māori and Pacific voices on student success in higher education. *AlterNative: An International Journal of Indigenous Peoples*, 10(2), 165–179. <https://doi.org/10.1177/117718011401000206>
- McCalman, J., Benveniste, T., Wenitong, M., Saunders, V., & Hunter, E. (2020). "It's all about relationships": The place of boarding schools in promoting and managing health and wellbeing of Aboriginal and Torres Strait Islander secondary school students. *Children and Youth Services Review*, 113, 104954. <https://doi.org/10.1016/j.childyouth.2020.104954>
- McGlade, H. (2012). *Our Greatest Challenge: Aboriginal Children and Human Rights*. Aboriginal Studies Press. Canberra.
- McGlade, H. (2014). The 'Fair Skinned' Children of Sister Kate's: Negotiating for the Past and Future. *Australian Feminist Law Journal*, 26(1), 31-46. <https://doi.org/10.1080/13200968.2007.10854376>
- Meagher, B & Marsh, K. (2017). Seeking the safety of sociofugal space: Environmental design preferences following social ostracism. *Journal of Experimental Social Psychology*, 68. 10.1016/j.jesp.2016.07.004.
- Mehta, V., & Bosson, J. K. (2010). Third Places and the Social Life of Streets. *Environment and Behavior*, 42(6), 779–805. <https://doi.org/10.1177/0013916509344677>
- Memmott, P & Long, S. (2002). Place Theory and Place Maintenance in Indigenous Australia. *Urban Policy and Research*, 20(1), 39-56, DOI: 10.1080/08111140220131591
- Memmott, P & Nash, D. (2016). *Indigenous homelessness: Australian context*. Indigenous Homelessness: Perspectives from Canada, Australia and New Zealand. (pp. 213-220) edited by Evelyn J. Peters and Julia Christensen. Winnipeg, Canada: University of Manitoba Press. <https://espace.library.uq.edu.au/view/UQ:417041>
- Memmott, P. 1996. Aboriginal Signs and Architectural Meanings. *Architectural Theory Review*, 1(2). <https://doi.org/10.1080/13264829609478291>

- Memmott, P., & Eckermann, K. (1999). *Cultural Issues in the Architectural Design of Indigenous Custodial Facilities*. Paper presented to Best Practice Interventions in Corrections for Indigenous People Conference. Adelaide.
- Memmott, P., & Keys, K. (2017). The Emergence of an Architectural Anthropology in Aboriginal Australia: The work of the Aboriginal Environments Research Centre. *Architectural Theory Review*.
<https://doi.org/10.1080/13264826.2017.1316752>
- Memmott, P., & Reser, J. (1998). Design Concepts and Processes for Public Aboriginal Architecture, paper presented to *11th Conference on People and Physical Environment Research*, 3-6 December, University of Sydney, Faculty of Architecture.
- Memmott, P., Long, S., Bell, M., Taylor, J., & Brown, D. (2014). *Between places: Indigenous mobility in remote and rural Australia*. AHURI Positioning Paper (81). <https://espace.library.uq.edu.au/view/UQ:84390>
- Midlarsky, E. (1968). *Aiding responses: an analysis and review*. 14, 224-260.
- Milgram, S. (1970). The experience of living in cities. *Science*, 167, 1461-1468.
<https://doi.org/10.1126/science.167.3924.1461>
- Mirmoghtadaee, M. (2008). The criterion for assessing the possibility of collective memories formation, transferring and recording in the city. *Journal of Fine Arts*, 37(2-3), 151-155. [https://doi.org/10.1016/0165-0327\(95\)00090-9](https://doi.org/10.1016/0165-0327(95)00090-9)
- Molin, J., Mellerup, E., Bolwig, T., Scheike, T., & Dam, H. (1996). The influence of climate on development of winter depression. *Journal of Affective Disorders*, 37. [https://doi.org/10.1016/0165-0327\(95\)00090-9](https://doi.org/10.1016/0165-0327(95)00090-9)
- Moodie, N., Maxwell, J & Rudolph, S. (2019). The impact of racism on the schooling experiences of Aboriginal and Torres Strait Islander students: A systematic review. *The Australian Educational Researcher*, 46. 10.1007/s13384-019-00312-8.
- Moore, T. H. M., Kesten, J. M., López-López, J. A., Ijaz, S., McAleenan, A., Richards, A., Gray, S., Savović, J., & Audrey, S. (2018). The effects of changes to the built environment on the mental health and well-being of adults: Systematic review. *Health & Place*, 53, 237-257.
<https://doi.org/10.1016/j.healthplace.2018.07.012>
- Morentin, J. M. (2009). Semiotics of the Edges: Notes on Semiotic Methodology. *Spain Editorial Comunicarte*.
<http://www.semioticmethodology.com/Edges.pdf>
- Morentin, M & Ignacio, J. (2011). Developing the concept of international education: Sixty years of UNESCO history. *PROSPECTS*, 41. 10.1007/s11125-011-9210-x.

- Morieson, L., Carlin, D., Clarke, B., Lukas, K., & Wilson, R. (2013). Belonging in education: Lessons from the belonging project. *The International Journal of the First Year in Higher Education*, 4(2), 87–97. 10.5204/intjfyhe.v4i2.173
- Nash, D., O'Rourke, T., Memmott, P & Haynes, M. (2020). Indigenous preferences for inpatient rooms in Australian hospitals: a mixed-methods study in cross-cultural design. *HERD: Health Environments Research & Design Journal* doi:10.1177/1937586720925552
- Newman, D. B., Sachs, M. E., Stone, A. A., & Schwarz, N. (2020). Nostalgia and well-being in daily life: An ecological validity perspective. *Journal of Personality and Social Psychology*, 118(2), 325–347. <https://doi.org/10.1037/pspp0000236>
- Nind, M. (2011). Participatory data analysis: a step too far? *Qualitative Research*, 11(4), 349–363. <https://doi.org/10.1177/1468794111404310>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods*, 16(1) <https://doi.org/10.1177/1609406917733847>
- Núñez-González, S., Delgado-Ron, J. A., Gault, C., Lara-Vinueza, A., Calle-Celi, D., Porreca, R., & Simancas-Racines, D. (2020). Overview of “Systematic Reviews” of the Built Environment’s Effects on Mental Health. *Journal of Environmental and Public Health*, 2020, 9523127. <https://doi.org/10.1155/2020/9523127>
- O'Bryan, M. (2016). *Shaping Futures, Shaping Lives: An investigation into the lived experience of Aboriginal and Torres Strait Islander students in Australian boarding schools*. PhD diss., The University of Melbourne. <https://doi.org/10.13140/RG.2.2.28100.83842>
- O'Bryan, M. & Fogarty, B. (2020). Boarding off and on Country: A study of education in one Northern Territory remote community, Commissioned Report No. 04, *Centre for Aboriginal Economic Policy Research, Australian National University*. <https://doi.org/10.25911/5f1fff279309f>
- O'Rourke, T. (2020). Uses of the vernacular in the design of indigenous housing. *Fabrications*, 30(1), 1-24. <https://doi.org/10.1080/10331867.2020.1721104>
- Oldenburg, R. (1999). *The great good place: cafés, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a community*. MA: Da Capo Press. Cambridge.
- Opie, C.A., Gibson-Thorpe, B., Lees, C. (2019). Believe in me and I will believe in myself, a rural Australian health service learns how to mangan *dunguludja ngatan* (build strong employment) for Aboriginal and Torres Strait Islander people: a qualitative study. *Human Resources for Health*, 17, 44. <https://doi.org/10.1186/s12960-019-0384-2>

- O'Rourke, T & Nash, D. (2019). Aboriginal yards in remote Australia: adapting landscapes for indigenous housing. *Landscape and Urban Planning*, 182, 124-132. <https://doi.org/10.1016/j.landurbplan.2018.10.013>
- O'Rourke, T, & Nash, D. (2020). Designing hospitals for First Nations people. *The Health Advocate*, 58,18-20.
- Osterman, K.F. (2000). Students' need for belonging in the school community. *Review of Educational Research*, 70, 323–367. doi:10.3102/00346543070003323
- Osbourne, M. (2016) Learning Environments, Belonging and Inclusion. *CORE Education White Paper*.
- Ozbay, F., Johnson, D. C., Dimoulas, E., Morgan, C. A., Charney, D., & Southwick, S. (2007). Social support and resilience to stress: from neurobiology to clinical practice. *Psychiatry*, 4(5), 35–40. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2921311/>
- Özsungur, F. (2020). The Effects of Workplace Belongingness on Exploratory Innovation: The Mediating Role of Exploitative Innovation. *Journal of Business Research*, 12, 1788-1800. 10.20491/isarder.2020.944.
- Panksepp J. (2003). Neuroscience. Feeling the pain of social loss. *Science*, 302(5643), 237–239. <https://doi.org/10.1126/science.1091062>
- Pearson, D. G., & Craig, T. (2014). The great outdoors? Exploring the mental health benefits of natural environments. *Frontiers in Psychology*, 5, 1178. <https://doi.org/10.3389/fpsyg.2014.01178>
- Pearson, N. (2005). The Cape York Agenda. *Paper presented at the Address to the National Press Club, Canberra*. <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F1727107%22>
- Pearson, N. (2009a). *A People's Survival*. Weekend Australian. Retrieved from <http://www.capeyorkpartnerships.com/downloads/noel-pearson-papers/a-peoples-survival-081009.pdf>
- Pearson, N. (2009b). *Up From The Mission*. Black Inc. Melbourne.
- Pearson, N. (2014). *AIEF is in the Business of Nation Changing*. In AIEF (Ed.), *The Australian*.
- Pegas, P., Alves, C., Nunes, T., Bate-Epey, E., Evtyugina, M & Pio, C. (2012). Could Houseplants Improve Indoor air Quality in Schools? *Journal of toxicology and environmental health, Part A*, 75, 1371-80. 10.1080/15287394.2012.721169.

- Peng, J., Strijker, D., & Wu, Q. (2020). Place Identity: How Far Have We Come in Exploring Its Meanings?. *Frontiers in psychology*, 11, 294. <https://doi.org/10.3389/fpsyg.2020.00294>
- Perkins, D. D., Meeks, J. W., & Taylor, R. B. (1992). The physical environment of street blocks and resident perceptions of crime and disorder: Implications for theory and measurement. *Journal of Environmental Psychology*, 12(1), 21–34. [https://doi.org/10.1016/S0272-4944\(05\)80294-4](https://doi.org/10.1016/S0272-4944(05)80294-4)
- Perkins, D. D., Wandersman, A. H., Rich, R. C., & Taylor, R. B. (1993). The physical environment of street crime: Defensible space, territoriality and incivilities. *Journal of Environmental Psychology*, 13(1), 29–49. [https://doi.org/10.1016/S0272-4944\(05\)80213-0](https://doi.org/10.1016/S0272-4944(05)80213-0)
- Perolini, P. (2011). Interior Spaces and the Layers of Meaning. *Design Principles and Practices*, 5, 163–174. <https://doi.org/10.18848/1833-1874/CGP/v05i06/38247>
- Pinker, S. (2015). *The Village Effect: How Face-To-Face Contact Can Make Us Healthier and Happier*. Vintage Canada. Toronto.
- Preziosi, D. (1979). Architecture, Language and Meaning: The Origins of the Built World and its Semiotic Organization *Approaches to Semiotics*. De Gruyter Mouton.
- Proshansky, H. M. (1978). The City and Self-Identity. *Environment and Behavior*, 10(2), 147–169. <https://doi.org/10.1177/0013916578102002>
- Proshansky, H. M., Fabian, A. K., & Kaminoff, R. (1983). Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology*, 3(1), 57–83. [https://doi.org/10.1016/S0272-4944\(83\)80021-8](https://doi.org/10.1016/S0272-4944(83)80021-8)
- Rapoport, A. (1972). Australian Aborigines and the definition of place. In W. Mitchell (Ed.), *Environmental design research association third annual conference*. https://arch3711.files.wordpress.com/2014/09/rapoport_austaborig.pdf
- Rands, M., Gansemer-Topf. (2017). The Room Itself is Active: Classroom Design Impacts Student Engagement. *Journal of Learning Spaces*. 6(1), 26-33.
- Reason, P. & Bradbury, H. (2008). *The SAGE Handbook of Action Research*. SAGE Publications Ltd. doi: 10.4135/9781848607934.
- Redman-MacLaren, M., Benveniste, T., McCalman, J., Rutherford, K., Britton, A., Langham, E., Stewart, R., Saunders, P., Kinchin, I., & Bainbridge, R. (2019). Through the eyes of students: The satisfaction of remote Indigenous boarding students' with a transition support service in Queensland, Australia. *The Australian Journal of Indigenous Education*, 1–12. Cambridge Core. <https://doi.org/10.1017/jie.2019.3>
- Relph, E. (1976). *Place and Placelessness*. Pion.

- Reser, J. P. (1979). A matter of control: Aboriginal Housing Circumstances in Remote Communities and Settlements. In M. Heppel (Ed.), *A Black Reality: Aboriginal camps and housing in Remote Australia*. Canberra: Australian Institute of Aboriginal Studies.
- Rogers, J. (2016). Boarding School Business: Exploring Aboriginal Girls' Boarding Experiences Through Photoyarn. *Journal of Australian Indigenous Issues*, 19(1-2), 102-116.
- Rogers, J. (2016). *Boarding School Business: The Voices of Aboriginal Girls Attending Boarding Schools*. PhD Diss. Australian Centre for Indigenous History, School of History, College of Arts and Social Sciences, The Australian National University.
- Rogers, J. (2017). *We need to know the true cost of Indigenous boarding school scholarships on communities*. The Conversation. Retrieved from <https://theconversation.com/we-need-to-know-the-true-cost-of-indigenous-boarding-school-scholarships-on-communities-74622>
- Rogers, J. (2018). Photoyarn: Aboriginal and Māori Girls Researching Boarding Experiences. *Australian Aboriginal Studies Journal*, Vol 1, pp. 4-14. <https://search.informit.com.au/documentSummary;dn=906883787867788;res=IELAPA>
- Rogers, J., & Biddle, N. (2015). Stuck in the Middle: The effect of boarding schools for Aboriginal and Torres Strait Islander Students. *Inquiry into educational opportunities for Aboriginal and Torres Strait Islander students*. Submission 14.
- Rose, D. B. (1996). Nourishing Terrains: Australian Aboriginal Views of Landscape and Wilderness Canberra. *Australian Heritage Commission*. <https://catalogue.nla.gov.au/Record/990052>
- Rose, S. M. (1984). How friendships end: Patterns among young adults. *Journal of Social and Personal Relationships*, 1, 267–277. <https://doi.org/10.1177%2F0265407584013001>
- Rosenthal, N. E., Sack, D. A., Gillin, J. C., Lewy, A. J., Goodwin, F. K., Davenport, Y., Mueller, P. S., Newsome, D. A., & Wehr, T. A. (1984). Seasonal affective disorder. A description of the syndrome and preliminary findings with light therapy. *Archives of General Psychiatry*, 41(1), 72–80. <https://doi.org/10.1001/archpsyc.1984.01790120076010>
- Russell, D., Cutrona, C., McRae, C & Gomez, M. (2012). Is Loneliness the Same as Being Alone? *The Journal of psychology*, 146, 7-22. 10.1080/00223980.2011.589414.
- Sawir, E., Marginson, S., Deumert, A., Nyland, C., & Ramia, G. (2008). Loneliness and International Students: *An Australian Study*. *Journal of Studies in International Education*, 12(2), 148–180. <https://doi.org/10.1177/1028315307299699>

- Scannell, L., & Gifford, R. (2017). Place Attachment Enhances Psychological Need Satisfaction. *Environment and Behavior*, 49(4), 359–389. <https://doi.org/10.1177/0013916516637648>
- Seamon, D., 1979. *A Geography of the Lifeworld: Movement, Rest and Encounter*. Routledge. London. <https://doi.org/10.4324/9781315715698>
- Shean, M & Mander, D. (2020). Building Emotional Safety for Students in School Environments: Challenges and Opportunities. In *Health and Education Independence: Thriving from Birth to Adulthood*. Springer Singapore. 10.1007/978-981-15-3959-6_12.
- Shenton, Andrew. (2004). Strategies for Ensuring Trustworthiness in Qualitative Research Projects. *Education for Information*, 22, 63-75. 10.3233/EFI-2004-22201.
- Shortell, J. K. a. T. (2010). Place, Space, Identity: A Spatial Semiotics of the Urban Vernacular in Global Cities. *ESA Research Network Sociology of Culture Midterm Conference: Culture and the Making of Worlds*.
- Sibley, C., Greaves, L., Satherley, N., Wilson, M., Overall, N., Lee, C., Milojev, P., Bulbulia, J., Osborne, D., Milfont, T., Houkamau, C., Duck, I & Mueller, W. (2020). Effects of the COVID-19 Pandemic and Nationwide Lockdown on Trust, Attitudes towards Government, and Wellbeing. *American Psychologist*. 10.1037/amp0000662.
- Slater, J. (2016). *No place for safe spaces in Australian universities*. Retrieved 24 July 2020, from <https://www.smh.com.au/opinion/no-place-for-safe-spaces-in-australian-universities-20160229-gn66sl.html>
- Smith J. (1993) *After the Demise of Empiricism: The Problem of Judging Social and Educational Inquiry*. Ablex, Norwood, NJ, USA.
- Smith, A. (2009). Indigenous Peoples and Boarding Schools: A Comparative Study. *United Nations Permanent Forum on Indigenous Issues*. New York. https://www.un.org/esa/socdev/unpfii/documents/E_C_19_2009_crp1.pdf
- Smith, A. (2014). Aboriginal girls at risk of falling through the cracks at school. *Sydney Morning Herald*. Retrieved from <http://www.smh.com.au/nsw/aboriginal-girls-at-risk-of-falling-through-the-cracks-at-school-20140617-zsb13.html>
- Smith, D., Lommerse, M., & Metcalfe, P. (2014). *Perspectives on Social Sustainability and Interior Architecture: Life from the Inside* (2nd ed.). Springer Singapore. <https://doi.org/10.1007/978-981-4585-39-2>
- Smith, L. T. (1999). *Decolonizing Methodologies: Research and Indigenous Peoples*. Zed Books. University of Otago Press.
- Soja, E.W. (1996) *Thirdspace: Journeys to Los Angeles and other Real- and-Imagine Places*. Malden, MA: Blackwell.

- Sommerlad, E. A. (1976). *Kormilda, the way to tomorrow: A study in Aboriginal education*. Canberra: Australian National University Press.
<http://hdl.handle.net/1885/115116>
- Steele, W., & Keys, C. (2015). Interstitial Space and Everyday Housing Practices. *Housing, Theory and Society*, 32(1), 112–125.
<https://doi.org/10.1080/14036096.2014.938866>
- Stewart, R. (2015). Australian Indigenous Education Foundation Compendium of Best Practice for Achieving Successful Outcomes with Indigenous Students in Australian Boarding Schools. *The Australian Journal of Indigenous Education*. 44(2). 10.1017/jie.2015.22
- Stringer, E. T. (2013). *Action Research*. SAGE Publications. California.
- Stronge, S., Osborne, D., West-Newman, T., Milojev, P., Greaves, L., Sibley, C & Wilson, M. (2015). The Facebook Feedback Hypothesis of Personality and Social Belonging. *New Zealand journal of psychology*, 44.
- Sullivan, W. C., & Chang, C.-Y. (2011). Mental Health and the Built Environment. In A. L. Dannenberg, H. Frumkin, & R. J. Jackson (Eds.), *Making Healthy Places: Designing and Building for Health, Well-being, and Sustainability* (pp. 106–116). Island Press/Center for Resource Economics.
https://doi.org/10.5822/978-1-61091-036-1_7
- Swan, P., & Raphael, B. (1995). Ways Forward. *National Aboriginal and Torres Strait Islander Mental Health Policy National Consultancy Report*.
<https://trove.nla.gov.au/work/21831533>
- Tamisari, F. and E. Milmilany. (2003). Dhinthun Wayawu. Looking for a Pathway to Knowledge: Towards a vision of Yolngu Education in Milingimbi. *The Australian Journal of Aboriginal Education*, 32, 1-10.
<https://doi.org/10.1017/S132601110000377X>
- Tanner, C.K. (2000). The influence of school architecture on academic achievement. *Journal of Educational Administration*, 38(4), 309-330. <https://doi.org/10.1108/09578230010373598>
- Thomson, P. (Ed). (2008). Children and Young People: Voices in Visual Research. *Doing Visual Research with Children and Young People*, 1-19. Routledge, New York.
- Thomson, S., De Bortoli, L., Underwood, C., & Schmid, M. (2019). PISA 2018: *Reporting Australia's Results, Volume I Student Performance*. Camberwell, VIC: Australian Council for Educational Research (ACER). <https://research.acer.edu.au/ozpisa/35>.
- Tiwari, R. (2010). *Space, Body, Ritual: Performativity in the City*. Lexington Books. Maryland, Washington.

- Tobin, G. A., & Begley, C. M. (2004). Methodological rigour within a qualitative framework. *Journal of Advanced Nursing*, 48, 388–396. doi:10.1111/j.1365-2648.2004.03207.x
- Turner, J., & Fichter, R. (1972). *Housing as a Verb*. In J. F. C. Turner & R. Fichter (Eds.), *Freedom to build: Dweller control of the housing process* (pp. 148–175). Macmillan.
- Twigger, R. C., & Uzzell, D. (1996). Place and Identify Process. *Journal of Environmental Psychology*, 16.
- Utz, R. L., Swenson, K. L., Caserta, M., Lund, D., & deVries, B. (2014). Feeling lonely versus being alone: loneliness and social support among recently bereaved persons. *The Journal of Gerontology. Series B, Psychological Sciences and Social Sciences*, 69(1), 85–94. <https://doi.org/10.1093/geronb/gbt075>
- Van Baarsen, B., Snijders, T. A. B., Smit, J. H., & van Duijn, M. A. J. (2001). Lonely but Not Alone: Emotional Isolation and Social Isolation as Two Distinct Dimensions of Loneliness in Older People. *Educational and Psychological Measurement*, 61(1), 119–135. <https://doi.org/10.1177/00131640121971103>
- Van Onselen, L. (2019, November 24). Australia's \$37.6b international student export con. MacroBusiness. <https://www.macrobusiness.com.au/2019/11/australias-37-6b-international-student-export-con/>. Accessed 25 July 20.
- Vollman, A. R., Anderson, E.T. & McFarlane, J. (2004). *Canadian Community as partner*. Philadelphia, PA: Lippincott Williams & Wilkins. <https://search.library.utoronto.ca/details?6284891>
- Wang, C. C., Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior*, 24, 369–387. doi:10.1177/109019819702400309
- Wei, L. (2011). Moment Analysis and translanguaging space: Discursive construction of identities by multilingual Chinese youth in Britain. *Fuel and Energy Abstracts*. 43. 1222-1235. 10.1016/j.pragma.2010.07.035.
- Weisman, L. (1994). *Discrimination by Design: A Feminist Critique of the Man-made Environment*. University of Illinois Press.
- Wesselmann, E., Ren, D & Williams, K. (2015). Motivations for Responses to Ostracism. *Frontiers in Psychology*, 6. 10.3389/fpsyg.2015.00040.
- Whiting, E., Everson, K & Feinauer, E. (2018) The Simple School Belonging Scale: Working Toward a Unidimensional Measure of Student Belonging, Measurement and *Evaluation in Counseling and Development*, (51)3, 163-178, DOI: 10.1080/07481756.2017.1358057

- Whitney, K. (1997). *Dually Disadvantaged: The Impact of Anglo-European Law on Indigenous Australian Women*. JCULR, 4.
- Wilkins, A. (2017). Visual discomfort indoors. *Lighting Research and Technology*. 10.1177/1477153517736467.
- Wright, M., Lin, A., & O'Connell, M. (2016). Humility, inquisitiveness, and openness: Key attributes for meaningful engagement with Nyoongar people. *Advances in Mental Health*, 14(2), 82–95.
<https://doi.org/10.1080/18387357.2016.1173516>
- Yazdanpour, A & Moztarzadeh, H. (2014). Sense of Belonging in Research Building. *Advances in Environmental Biology*.
- Ye, F & LeBaron Wallace, T. (2014). Psychological Sense of School Membership Scale: Method Effects Associated With Negatively Worded Items. *Journal of Psychoeducational Assessment*, 32. 202-215.
10.1177/0734282913504816.
- Zamenopoulos, T. and Alexiou, K. (2018). Co-Design as Collaborative Research. *Connected Communities Foundation Series*. Bristol: University of Bristol/ AHRC Connected Communities Programme. https://connected-communities.org/wp-content/uploads/2018/07/Co-Design_SP.pdf
- Zhong, C.-B., & Leonardelli, G. J. (2008). Cold and lonely: Does social exclusion literally feel cold? *Psychological Science*, 19(9), 838–842.
<https://doi.org/10.1111/j.1467-9280.2008.02165.x>
- Zhou, X., Wildschut, T., Sedikides, C., Chen, X., & Vingerhoets, A. J. J. M. (2012). Heartwarming memories: Nostalgia maintains physiological comfort. *Emotion (Washington, D.C.)*, 12(4), 678–684.
<https://doi.org/10.1037/a0027236>

Appendix

Appendix A: Resource for planners



always was always will be.

I respectfully acknowledge the past, present and emerging Elders of the Whadjuk Nyoongar people, the traditional custodians of the land on which this research took place. I also acknowledge the Elders and community members of the students who shared their ideas and stories in this project, who are represented here by extension of their young peoples' voices.



This project was supervised by Professor Reena Tiwarri and Professor Rhonda Oliver in consultation with an Advisory Group and Cultural Advisor.

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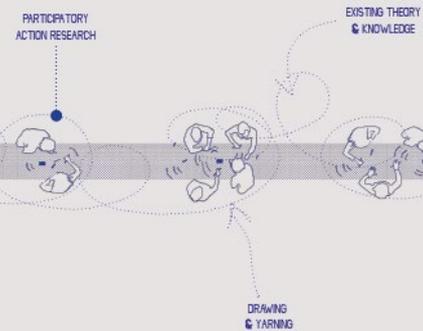
Created in August 2020.

the research.

The ideas in this booklet are from research with Aboriginal residents of boarding schools about how interior design could be used to increase their sense of belonging while away from home. The research was under the guidance of a majority Aboriginal Advisory Group who represented various roles and perspectives in both boarding school and academic communities. Using a Participatory Action Research (PAR) methodology, data was collected through drawing and yarning around a large roll of brown paper.

There were 52 participants, which included 27 current students, 18 students who had graduated in the last 10 years, and 7 boarding school staff members with extensive first hand knowledge of Aboriginal student experiences. These participants represented a mix of independent boarding schools in metropolitan Perth, surrounding suburbs, and in regional Western Australia.

This guide presents ideas for the design of future boarding schools from the perspective of Aboriginal student residents.



YARNING AND DRAWING
ABOUT BOARDING SCHOOL
DESIGN WITH...

52 PARTICIPANTS

17 RECORDED SESSIONS

20 METRES OF PAPER





connecting threads.

This booklet presents 10 IDEAS for creating a sense of belonging in boarding schools through interior design. It should be noted that there are other important threads from the yarning and drawing with participants which do not have a dedicated page here, but that connect all of the suggestions.

THERE IS NO 'ONE SIZE FITS ALL' DESIGN SOLUTION.

Every school and group of students is different, so while some ideas were very strongly agreed upon across this research (and these are presented here), there were many contradictory and diverse experiences. This suggests the need for a case by case design strategy for individual boarding schools, and a high level of flexibility to cater for continuously changing student cohorts.

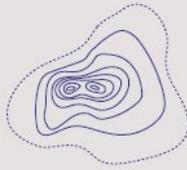
THE INTERIOR DESIGN SHOULD BE INFORMED BY THE LAND IT IS ON, AS DIRECTED BY LOCAL ELDERS AND CULTURAL KNOWLEDGE.

Students often expressed their unease with the low level to which the environment was connected and informed by local Aboriginal culture.

INDOOR AND OUTDOOR SPACES SHOULD BE CONNECTED.

Access to outdoor space should be provided, while keeping in mind the varied perceptions of coldness and weather amongst residents. Participants described the challenge of adjusting to a much colder climate, describing how this restricted their time spent outdoors and in nature compared with home. Students suggested ways of creating more connection to the surrounding natural environment while inside.

1 SITE



The location and history of the boarding school site was important to participants of this project. Concern was expressed for the potential significance or negative histories that the students may be unaware of, such as if the school was located on old burial grounds. There was a common wish to know more about the pre and post colonial histories of the place where they were living.

THREE BROAD FACTORS for the boarding school site emerged from the yarning and drawing.

PUT IT IN THE RIGHT PLACE

Associations with the boarding school site were significant in students' descriptions of feeling a sense of belonging to that place or not. There was a common struggle to articulate specific events or circumstances to explain negative associations, however there was a common sense of unease amongst some students as to the unknown history of the location. For new boarding schools, it was important to students that they be built in the "right" place.

Someone later told me that...the boarding school is built on main burial grounds. Can't remember who told me, but someone told me. I was like, well we can never stop. That's why shit keeps happening here. So, that's something to take into consideration. Location.

Past C 01

INFORMED BY THE LAND

Acknowledgement and involvement with Aboriginal cultures in the main school programming could be expanded into the physical design of the boarding school. Participants proposed ideas for how this more permanent connection could lead to deeper sense of acceptance and belonging.

...whatever land you're on is the one that'll be recognized first. So for example, we are on Noongar land, so that has to be recognized first. So obviously your welcome to Country at the first door is an acknowledgement of Country for Noongar people, this sort of stuff. So that always comes first...it's informed by our land...it's our land then that's making that space.

Staff B 01

SHOWING MEMORY

The participant voices on this topic suggest that the site and style of boarding school architecture is important, but so is knowing its history. This is especially important for existing facilities, as the student voices suggest that regardless of the current location (which may not be able to be changed), there should be access to information about the site history. This may either reassure or validate student worries, but in other cases would allow them to relate to their surroundings from an informed position. Embedded historical information in the interior design could help to reduce this intangibility.

'cause I know a lot of boarding schools are all old haunted buildings, and just having fresh new buildings, and not having history in it. Well, not haunted but old, or stuff has happened there, or no, it's weird but a lot of old Catholic boarding schools in particular... just, I don't know- obviously some stories are made up, but just the style of the building. They just create- negative thinking I suppose. I don't know, does that make sense? It is hard to be specific about what that is.

Past A 01

2 SYMBOLS



Symbolic design features were described as powerful and simple ways of increasing a sense of belonging for Aboriginal student residents of boarding schools. Some suggestions for symbols (such as artwork) could be added to an existing boarding house easily. Other ideas were more complex (such as landscaping with local plants), requiring long term design thinking. This suggests a need for a combination of short term actions and planning for more complex structural change in boarding schools.

From this research, **FOUR SYMBOLIC ACTIONS** are suggested.

FLY THE ABORIGINAL & TORRES STRAIT ISLAND FLAGS

Flying the Aboriginal flag was highlighted as a first step towards creating a welcoming environment. For some students, this represented multigenerational struggles for recognition within their school.

"I always say the easiest first starting point is stick an Aboriginal flag out the front. That's the starting point of it."

Staff B 01

DISPLAY ABORIGINAL ARTWORK

Students described the positive effect of Aboriginal artwork for them, especially when it had a special meaning or a personal connection.

"When I see Aboriginal art, it just makes me feel so good."

Past C 01

INCREASE DIVERSITY IN SCHOOL MARKETING

Some students explained that school marketing and official posters had led to a sense of exclusion by failing to represent the diversity of the student cohort.

"This is gonna sound weird, but you know that sign or poster in the front of school, you'd think there'd be like another culture within the picture?"

Current D 01

INCORPORATE LOCAL PLANTS

Plants were also described as having symbolic meaning. Participants suggested landscaping informed by local plants and features, rather than "English" style gardens.

"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

3 FIRE



Every student group in this research talked about the important role of fire in their feeling a sense of belonging. This was often the first design idea to be proposed within the yarning and drawing. For students who had access to a fire pit on their school grounds this was described as a favourite feature that helped them to feel safe and connected. For those without, it was suggested that this would be a significant improvement with a big positive impact.

There are **THREE MAIN DESIGN CONSIDERATIONS** for fire that overall could help Aboriginal students feel more of a sense of belonging while at boarding school.

HAVE A FIRE

Students usually proposed an outdoor fire pit in their ideas for a future boarding school. However, given the comparatively cool climate of many boarding schools compared with students' homes, there were also ideas for how outdoor experiences (such as sitting around a fire or watching the rain) could be replicated indoors during cold weather. For example, this could be through an indoor fire place, by watching an outdoor fire pit from a sheltered or indoor location, or by replicating the social function of a fire pit inside.

Just to sit around the fire. Just to sit around and yam. Fire. Big tick. Must have... Takes you back to country. You can kind of pretend that you're not so worried by all the buildings. Like, are we out in the country, we're camping...

Past C 01

USE IT AS A SOCIAL SPACE

The potential function of fire was described as being more than just physical, it was also social. For this reason, literal or symbolic references to gathering around a fire could be used as a way to organise social space.

...the schools and the boarding house need to be separate because you need to have that transition, that break between the two... I suppose a nice way maybe of doing that is you go from school, you go to your fire pit, have your afternoon tea there. Then you go home to your boarding house home. It's that transition.

Staff B 01

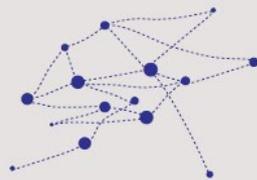
USE IT FOR COOKING

Cooking was described as an important social activity that could help Aboriginal students feel a sense of belonging, especially through preparing familiar foods from home.

However, many students reported that there was nowhere in the boarding house to cook in this social way. A social fire place, or a re-imagining of a similar setting, could be a way of providing this emnity.

So I put a barbecue area on the left, and a fireplace on the right. So I was thinking maybe a little fireplace we have a set day of the week, or every fortnight where you come together and maybe put something on the barbecue or have a dinner at the barbecue, or have a supper just before bed, around the campfire.

Past A 01



4 MAPPING CONNECTIONS

Combining spatial and social knowledge within the boarding house could help to increase Aboriginal student sense of belonging. Participants suggested that conceptualising known and new connections between past and current residents could help to increase understanding and sense of relatedness within the boarding house. For example by showing where each student is from on a map, displaying photos of home towns, creating family trees, and being able to 'leave a mark' for future students to see.

The idea of mapping connections has **TWO MAIN FUNCTIONS.**

TO LEARN ABOUT EACH OTHER

Students and staff within boarding schools could learn about each other's backgrounds, homes, languages through ways of mapping and visualising their connections. One participant discovered she was related to some of the other residents at boarding school after she had been living there for some time. This helped her to feel a sense of belonging and she suggested that it would be helpful to learn this information sooner. There was also a theme in the data that Aboriginal feel a need to constantly explain and justify their identity, and participants felt that this could be improved through increased understanding and learning by all residents within the boarding house.

And I know it's done all the time but when you have the map of the Aboriginal language groups and when you see where all the girls come from, I reckon that, even though it's... I enjoy that 'cause it's like, 'you mob are from all the way over here and all come to this place'. Should just link it together. And each girl gets to leave their mark.

Past C 01

Yeah, because family's really important, and when they were putting all their pictures up, it was a great connection in more ways than just a reminder of home, it was a connection from staff to students, students to staff... 'Where are you coming from, what's happening in this photo, who's this here?' It created conversation, which is really good. But there's also the connection, so if we're ringing family, then we've got a face to a parent that we're talking to.

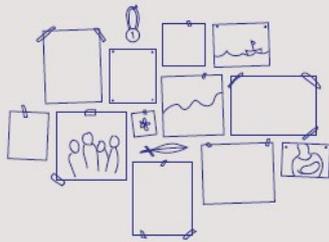
Staff A 01

TO LEAVE A LEGACY

Physical ways of showing connections between residents and places could also be used as a way for students to have a sense of legacy in the space. The benefits of something like this are not limited to individual students that participate, but could also positively impact sense of place identity and intergenerational associations for future students.

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



5 DECORATION

Student and staff participants described the value of self-expression through decoration, such as by arranging photos, and displaying drawings, posters, and objects. However, there are two primary barriers were; 1) frequency with which students changed rooms, and 2) restrictions enforced to protect surfaces from damage. Overall, there are three main ways for students to access the benefits of decoration for their sense of belonging.

ENCOURAGE DECORATION

Participants described administrative barriers to decoration, usually attributed to a need to maintain and preserve wall surfaces. From the data in this project, it seems that the potential benefits for student sense of belonging would justify the relaxation of such rules. This means that traces may be left from student decoration such as marks on walls, damage to paint or plaster, or leftover permanent hooks. A budget could be allowed for repair of this superficial damage, students could be individually responsible for the repair, or these traces of occupation could be seen as an accepted by-product of habitation.

One of the things we did on this wall, and it looked absolutely fantastic, was we had little canvases, they were only nine by five, and all of the students painted these canvases and put whatever they wanted on them and then we stuck them all, and it was just beautiful, it was like this beautiful piece of artwork, but they don't actually want us putting anything on to the walls unless it's like a picture or something, I don't know.

Staff A 01

INCREASE PERSONALISABLE SURFACES

By increasing personalisable surfaces such as pin boards, acoustic foam, laminate, white boards, shelves and hooks, students will have more opportunity to personalise personal and shared spaces.

You could get away with putting it over the drawers and the cupboards and stuff, but not directly on the walls because blu-tac and sticky tape aren't allowed.

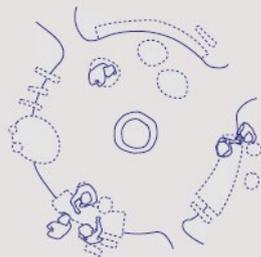
Past C 01

CREATE MOBILE SYSTEMS FOR DECORATION

One of the main barriers to decoration by students was that they were busy and required to change rooms each term. This resulted in many personal items remaining packed in boxes across multiple terms or semesters. Storage options that combine self-expression with high portability could allow boarding school residents to easily maintain their sense of identity between room transitions.

So I think those type of things also limit your room, and your rooms do feel a little depressing to be honest and you have to spice it up to make it like... to put things on your walls and stuff... I don't do it anymore but that's just 'cause I don't have time for that.

Current B 02



6 CIRCULAR LAYOUT

The overall layout of participants' proposals for future boarding schools typically had three main characteristics: a central focus point, nested spaces, and multiple functions. Throughout the project 'circularity' was discussed as more than just the literal shape of a circle, but also in terms of symbolic meaning, intangible qualities, and a deeper sense of thinking. This is reflected in these characteristics.

CREATE A CENTRAL POINT OF FOCUS

Participants described administrative barriers to decoration, usually attributed to a need to maintain and preserve wall surfaces. From the data in this project, it seems that the potential benefits for student sense of belonging would justify the relaxation of such rules. This means that traces may be left from student decoration such as marks on walls, damage to paint or plaster, or leftover permanent hooks. A budget could be allowed for repair of this superficial damage, students could be individually responsible for the repair, or these traces of occupation could be seen as an accepted by-product of habitation.

Yeah, no, it's definitely a circle. I didn't think of it as having any corners. Especially the fire-pit in the middle.

Past B 01

NESTED SPACES

When prompted to design a physical layout, participants would commonly plan the space in a hierarchical order, starting with a central meeting place as above. Other functions were then typically added within or branching out from this space. Overall the suggestion was for large communal spaces with smaller spaces and functions within.

With mine, I put big space for different spaces within that massive space, where it's like a study area, a room where they can go and just relax and just get everything out of their head... You know how libraries have different areas? Yeah, it's kind of like that.

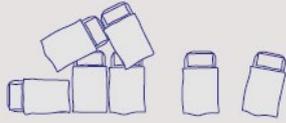
Current E 01

MULTIFUNCTIONAL

The provision of options in the physical environment is necessary to prevent conflicts that lead to perceived and real exclusion from the school. The current research found that options need to be available in terms of a variety of activities, multiple wayfinding paths, diversity in social spaces, and flexible furniture.

I reckon the room is too square, I reckon if we had a circle rec room in the middle, and these things branching off, then it would be. Or you could have a yarning circle in the middle directly, with a couch making the circle, and then you're different little spots for video games and stuff in each corner. Your big cast off area in the middle, and the couches and stuff, and then the central idea for this is just sitting down and talking. So, you can have your video games, your pool table, and your stuff like this-but even having it back in the square format first, you have that couched area in the middle. You have the couched area in the middle and the corners and stuff.

Past A 01



7 SLEEPING OPTIONS

Each student has different needs for privacy and togetherness which translates to a variety of preferences for bedroom arrangements. In this research, there were some common themes in sleeping arrangements that were described as a challenge for Aboriginal students sense of belonging while at boarding school. For some participants in this research, the experiences of sleeping alone, in the dark, or in a large building were unfamiliar. This lack of togetherness at night could be a source of fear. For others, the challenges of communal living led to a desire for increased privacy and alone-ness. In response, two priorities are suggested for the design of student bedrooms.

SUPPORT STUDENT SENSE OF SAFETY

Sense of physical safety is an essential component of sense of belonging. In this research, fear of the dark, of being high off the ground, and of being alone were described as challenges to feeling safe while sleeping during the night. Students reported "sneaky" sleepovers, attempts to "smoke out" bedrooms with incense sticks, and requesting to sleep in common spaces as solutions to these problems. These solutions were often in resistance to strict physical and administrative barriers. Cultural support, dimmable lighting, and options for co-sleeping were all suggested by students as ways of increasing sense of safety. Bedroom layouts and furniture should be conducive to one-off or short-term sleepovers for cases where students are lonely, scared, overwhelmed, or generally could benefit from physical proximity with peers. This could be through the provision of beds that can easily be pushed together or the ability to lay at least one mattress on a bedroom floor.

But even, I remember, it's just like the weird rules about the whole thing...At the time when all the demons were coming and visiting...I was not sleeping by myself... so I pulled my mattress off my bed, I was like, 'I'm not sleeping in there'. And I put it on the floor in their room and I camped there and after one night the boarding house told me I wasn't allowed to do it anymore.

Past C 01

PLAN FOR FLEXIBILITY

Within boarding facilities of all sizes, several types of sleeping options may need to be provided to allow for a variety of needs. It can be difficult to accommodate every student in a close proximity and high-density environment, the suggestion from this research is to aim for high levels of flexibility by varying bedroom furniture (for example mixed bed sizes, bunk beds), bedroom sizes (single, double, group), layouts of shared sleeping spaces (for proximity or privacy), and levels of independence (which may include independent satellite living options). Prioritise loose and flexible furniture over fixed items or built in cabinetry. There was also a common suggestion for small scale clustered groups of bedrooms to replace long and repetitive corridors.

It's a stepping stone into independent living...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... 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

Can we put a bunk in there? Is the ceiling high enough for us to put a second bed in there? It's the flexibility of those places that help adjust in the transition. It's got to be flexible in transition.

Staff C 01



8 SPACE TO SWITCH OFF

Students living in boarding schools have complicated boundaries between their personal and school lives. This was described as a challenge by participants of this project, and a consideration that could be addressed through design. Boarding school planners should include spaces that allow students to access relief from their school and social obligations.

THROUGH PHYSICAL CUES

The design of the built environment could help students to switch off from school through physical cues. This could be by including transitional threshold spaces to relax at the end of the school day, extending the journey between school and the boarding house, giving the boarding house a distinct place identity from the main school, creating spaces that are acoustically private, and providing access to social outdoor spaces. Acoustic privacy between bedrooms and within shared spaces is important. For existing accommodation, consider further soundproofing within rooms through increasing acoustically absorbent materials such as foam pin boards (which could also provide opportunities for student personalisation). For future builds, consider wall thickness, surface finishes, layout, and provision of specific space that maximise opportunity for higher acoustic privacy. In existing and new builds, consider engaging a specialist acoustic consultant.

Like from school, switch off the rules.

Current A 01

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

I actually think the schools and the boarding house need to be separate because you need to have that transition, that break between the two...

Staff B 01

THROUGH ACTIVITIES

Some activities were also suggested as being able to help students switch off. These included creative projects, listening to music, cleaning, spending time outside, and unstructured social time. These activities could be considered in the interior design of boarding schools.

And it's kind of just a space to really just be you.

Current E 01

When I wanted to get out I would just go and chill out in the great court, just somewhere with grass or something. Just put music in and relax and get all my thoughts out.

Current E 01

Maybe a little art area... Space to draw, paint, write. Like weaving, I don't know. Things that you... you know how you get those chalky wall things? Chalk board paint. Write in your little thoughts on the day. Like wisdoms and stuff. I don't know, like...creating your own space.

Past C 01



9 HOME-LIKE

Students suggested that boarding schools should be “like home” but “different”. Overall, there was a theme in the data for future boarding schools that are more similar to a family home in terms of scale, organisation, and style. There were also suggestions for design elements that could connect students with their home communities while away, such as incorporating photos, art, and colours. However, there was a clear distinction between the need for boarding schools to be more like a home and actually being *home*. Participants warned against replicating or replacing home, wishing for the identity of boarding school to be *home-like*, but with its own distinct character.

DESIGN ON A SMALL SCALE

The large scale and high density of boarding schools was different to students ideas of home and belonging. Smaller scale accommodation could help to inherently reduce barriers to sense of belonging by being less repetitive, more personal, easier to navigate, conducive to supervision that feels less like ‘surveillance’, and visually more similar to a family home. This principle could also be considered within bigger accommodation facilities by clustering single large arrangements into groups of smaller settings.

And that’s where I think if you look at home environments...home environments are a lot more flexible. They cater to individual’s needs, you know? It’s like okay, I can see that you’re having a really bad day so therefore, okay I’m going to leave you alone. You’ve got your bed, fine. No worries. You’re in my line of sight so I can make sure you’re still checked on and this sort of thing.

Staff B 01

SUPPORT CARING ACTIVITIES

Participants described the role for activities that are based on love and connection in helping them to feel that the boarding school was more like a home environment. For example looking after pets, caring for plants and gardens, playing with the young children of boarding staff and cooking for others.

Yeah. Even like little babies. Some mistresses that had their families and their kids... They’d leave and then come back with the kids. And so there’d be a little kid that was growing up in the boarding house, and they’ve got like 200 older sisters.

Past C 01

AVOID INSTITUTIONAL QUALITIES

Boarding schools were commonly characterised by the participants as feeling institutional. This was in relation to factors such as the colours in the boarding house, the darkness of rooms, the long corridors, and the feeling of being watched, which led to associations with prisons and hospitals. Students proposed an overall more relaxed and informal atmosphere for the design of future boarding school spaces. Consider second-hand furniture as a way of giving a more unique identity to interior spaces, to combat repetition that leads to an institutional feeling, to give a sense of the spaces being more ‘ordinary’, and creates a potential activity for student involvement (visiting second hand stores to choose items).

Also, the dynamics of the area if that makes any sense. It’s all just structure... if it was more loose, I want to say, you feel you’re not on a tight strict plan. Everything is just so structured.

Current D 01

10 CULTURAL SAFETY

Student participants described the need for a culturally safe space within the boarding house. This need was described in response to experiences of racism, constant justification of Aboriginal identity, and a feeling of always needing to be “on”. There were two main points of view on this topic within the research:

- 1) That a purposeful room should be dedicated to Aboriginal students as a culturally safe space.
- 2) That the whole boarding school should be culturally safe and embody the qualities of a room like this.

RESPITE FROM THE WORLD ART LEARNING EXPRESS CULTURE REST
STUDY SPACE PLANTS SPACE TO CONNECT BACK TO THE LAND STORIES

The suggestion from this project is that these are not mutually exclusive agendas and could be pursued simultaneously.

Like a culturally safe place...When we were at [school name] at least there wasn’t a place in the boarding house or at the school that was just ours...It would give you a space to be yourself.

Past B 01

I feel like if it’s an Indigenous room you’d feel like more of a sense of belonging because you feel like you can just go over there and not feel like... I don’t know...it’s more like when you don’t have to put up an act or change to fit in or whatever...just having somewhere you can connect to that makes you feel that you belong. People, things that give you... So, if we had a room where you felt safe, felt accepted and belong. I feel like it just needs to have a home feel. The vibe of welcome-ness and easy-ness. Something that’s light and cool. Something that’s calming.

Current D 01

That room was really an emotional release for them to actually feel listened to, heard, seen.

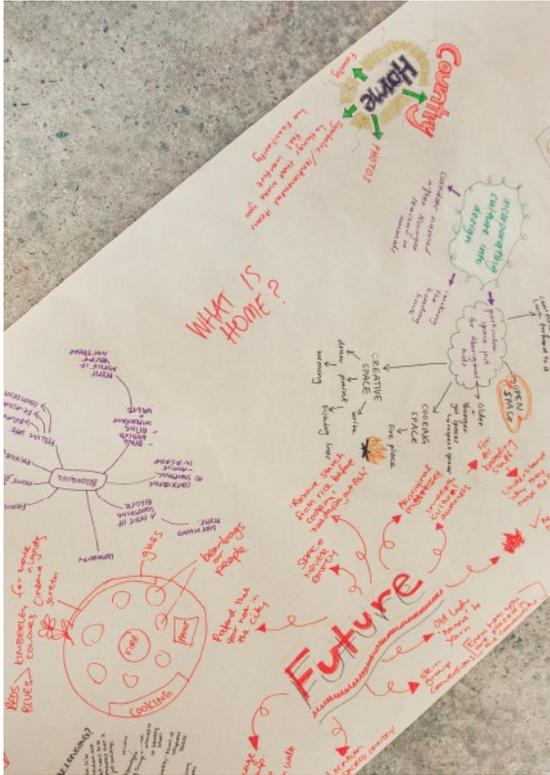
Staff C 01

It’s a matter of going why are you needing that room? If that room, you’re needing that because you’re just not feeling connected to people then obviously there’s an issue there. If you’re needing it because you’re not feeling at home then that means the space around you is not making you feel at home. So while the boarding houses are not providing that, yeah I get that. But what we want to do is actually make the whole boarding house so we don’t need that. But the thing is, at the same time, if you provide that room then people aren’t going to deal with this wider problem.

Staff B 01

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



RED FLAGS FOR LACK OF CULTURAL SAFETY

THE WHOLE SCHOOL IS CULTURALLY SAFE

How is this conclusion reached, how is it measured? From this research it seems that it takes considerable cultural and spatial transformation for a boarding school to get to this point. This view may be a sign that purposeful actions to ensure cultural safety for Aboriginal students are needed. While working towards the long term goal of a culturally safe campus, additional measures may need to be taken in the short term.

STUDENTS NEVER LEAVE THEIR ROOMS

There are many factors that could lead to student isolation (including a preference for privacy). This research suggests that bedrooms can become makeshift culturally safe spaces for Aboriginal students when they do not have this support elsewhere, and could be a sign that cultural safety could be increased within the boarding school.

OR Perhaps a space for cultural safety has already been created. If so, it could be evaluated with the following questions:

Is the space permanent?; Is cultural safety the primary purpose? (or are they secondary to another function, e.g., a classroom); What does the location and design say about the placement of student needs in the hierarchy of school facilities? (e.g., is it usually an office, a music room, a storage room); can the space be adapted to student needs? (or must it be continually returned to a default format); is the space open after school hours for boarders?; do students have a sense of ownership? (i.e., does it feel ordinary and comfortable).

By talking with students about their perceptions of these points, informed evaluations, and in turn spatial actions, could be made to promote cultural safety.

EMMA:

"WHAT DO YOU THINK, IF I FINISH THIS PROJECT AND I GO TO AN ARCHITECT AND THEY'RE LIKE, 'YEAH, WE'RE BUILDING A BOARDING SCHOOL.' AND I'M LIKE, 'OKAY, I HAVE ALL THIS INFORMATION FOR YOU.' WHAT DO THOSE ARCHITECTS THAT ARE MAKING THE BUILDINGS NEED TO KNOW THAT THEY WOULDN'T KNOW IF THEY DIDN'T TALK TO YOU GUYS?"

THE MOST IMPORTANT THING

How important it is to create a boarding house that is as close as possible replica to family and nature...if you've based your whole thoughts on nature and family to build a boarding house, you think of food, you think of color, you think of light. So the whole time you're designing that, that's what you've got to come back to. (Staff B 01)

Maybe more social things for the students. Like for those in the dorms. And outdoor stuff as well... and they should have a study room. (Current A 02)

I mean, I think what people would really like at boarding, I don't know if it comes down to architecture, but pets. (Current B 02)

For kids coming down from the Kimberley, make it look like home. Like put it on the wall, put a big sticker there of home and everything, know what I mean? Make it better but don't make it, like, too home. Everytime you look you get homesick. (Current B 03)

It would be so cool if that creative space, talking space, or that fire-pit was all one room. And it was one big room, and there was this indoor fire. And not, maybe it's a chimney, I don't know. But there's a fire inside. (Past C 01)

I reckon in the younger years, they should keep it [communal sleeping]...there's only curtains, there aren't doors so it's bad for getting changed and stuff. [But] the communal sense is always around and I really liked that about the younger years. (Current B 04)

Well, they just think of designing it to look good, not for comfort. So if they were designing it, it would just need to look nice. Like I said, with the couches, if they designed it they would just put individual couches because they looked pretty but they weren't comfortable...the springs are like when you move around, you can feel the springs literally stabbing you. (Current C 01)

Speaker 3: I feel make it ... definitely make interior design comfortable and vibrant but neutral as well.

Speaker 1: Something that was appealing and uplifting and...

Speaker 4: I don't know if this makes any sense but yeah. Just include everybody I guess.

Speaker 1: Yeah. Think about feelings and people different ... have an open mind. Definitely don't do the conservative usual thing. (Current D 01)

I can't really talk for everybody, but just ... I love how some parts of the boarding house are, but some areas I would change. (Current E 01)

ANYTHING ELSE YOU WANT TO ADD?

What about an underground trampoline? I love them. (Current E 01)

Indoor pool. With a heater. And a spa. (Current B 03)



SUMMARY

The research with students points to three central ideas for boarding school planners. Firstly, that the design of space can affect sense of belonging. Second, that Aboriginal students may have different spatial needs for feeling a sense of belonging at boarding school that should be considered. Third, that interior design is something that students should be able to participate in as an everyday activity.

Of the students' spatial needs, some were simple and could be measured in a practical way. For example, the amount of access to outdoor space; whether or not there is a place for fire; if the temperature of bedrooms can be adjusted to feel comfortable, or if the students could "chuck a nail in the wall" to decorate their bedroom (Current B 02). Other spatial needs were more complex, and harder to pinpoint. For example, the ability for students to feel that they could be themselves, to not feel watched or trapped, and for there to be a deeper sense of "whole Aboriginality" (Past C 01) to the environment beyond superficial symbols.

These needs circle the larger question of:

IS IT OKAY TO BE MYSELF HERE?

So that students feel that the answer to this question is "yes", it is proposed that there should be ways for the interior design of buildings to be continually changed and adapted by residents. This could be understood as a form of design "feedback" that allows students to give and receive clues to one another that they belong.

10 IDEAS

- CONNECTION TO SITE
- WELCOMING SYMBOLS
- FIRE
- MAPPING CONNECTIONS
- DECORATION
- CIRCULAR LAYOUT
- SLEEPING OPTIONS
- SPACE TO SWITCH OFF
- HOME-LIKE
- CULTURAL SAFETY

get in contact.

If you would like to discuss this research or talk about a project:

 emma.whettingsteel@outlook.com

 www.linkedin.com/in/emma-whettingsteel

Full text thesis will be available at
<https://espace.curtin.edu.au/>

Appendix B: Notice of ethics approval



Office of Research and Development

GPO Box U1987
Perth Western Australia 6845

Telephone +61 8 9266 7863
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Web research.curtin.edu.au

15-Nov-2017

Name: Reena Tiwari
Department/School: Dept of Architecture and Interior Architecture
Email: R.Tiwari@curtin.edu.au

Dear Reena Tiwari

RE: Ethics approval
Approval number: HRE2017-0803

Thank you for submitting your application to the Human Research Ethics Office for the project **Belonging in boarding school: The lived experience of boarding school design for female Aboriginal students from remote Western Australian communities.**

Your application was reviewed by the Curtin University Human Research Ethics Committee at their meeting on 07-Nov-2017.

The review outcome is: **Approved.**

Your proposal meets the requirements described in National Health and Medical Research Council's (NHMRC) *National Statement on Ethical Conduct in Human Research (2007)*.

Approval is granted for a period of one year from 15-Nov-2017 to 15-Nov-2018. Continuation of approval will be granted on an annual basis following submission of an annual report.

Personnel authorised to work on this project:

Name	Role
Tiwari, Reena	CI
Whettingsteel, Emma	Student

Standard conditions of approval

1. Research must be conducted according to the approved proposal
2. Report in a timely manner anything that might warrant review of ethical approval of the project including:
 - proposed changes to the approved proposal or conduct of the study
 - unanticipated problems that might affect continued ethical acceptability of the project
 - major deviations from the approved proposal and/or regulatory guidelines
 - serious adverse events

3. Amendments to the proposal must be approved by the Human Research Ethics Office before they are implemented (except where an amendment is undertaken to eliminate an immediate risk to participants)
4. An annual progress report must be submitted to the Human Research Ethics Office on or before the anniversary of approval and a completion report submitted on completion of the project
5. Personnel working on this project must be adequately qualified by education, training and experience for their role, or supervised
6. Personnel must disclose any actual or potential conflicts of interest, including any financial or other interest or affiliation, that bears on this project
7. Changes to personnel working on this project must be reported to the Human Research Ethics Office
8. Data and primary materials must be retained and stored in accordance with the [Western Australian University Sector Disposal Authority \(WAUSDA\)](#) and the [Curtin University Research Data and Primary Materials policy](#)
9. Where practicable, results of the research should be made available to the research participants in a timely and clear manner
10. Unless prohibited by contractual obligations, results of the research should be disseminated in a manner that will allow public scrutiny; the Human Research Ethics Office must be informed of any constraints on publication
11. Ethics approval is dependent upon ongoing compliance of the research with the [Australian Code for the Responsible Conduct of Research](#), the [National Statement on Ethical Conduct in Human Research](#), applicable legal requirements, and with Curtin University policies, procedures and governance requirements
12. The Human Research Ethics Office may conduct audits on a portion of approved projects.

Special Conditions of Approval

This letter constitutes ethical approval only. This project may not proceed until you have met all of the Curtin University research governance requirements.

Should you have any queries regarding consideration of your project, please contact the Ethics Support Officer for your faculty or the Ethics Office at hrec@curtin.edu.au or on 9266 2784.

Yours sincerely



Professor Peter O'Leary
Chair, Human Research Ethics Committee



Office of Research and Development

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12-Oct-2018

Name: Reena Tiwari
Department/School: Dept of Architecture and Interior Architecture
Email: R.Tiwari@curtin.edu.au

Dear Reena Tiwari

RE: Amendment approval
Approval number: HRE2017-0803

Thank you for submitting an amendment request to the Human Research Ethics Office for the project **Belonging in boarding school: The lived experience of boarding school design for female Aboriginal students from remote Western Australian communities**.

Your amendment request has been reviewed and the review outcome is: **Approved**

The amendment approval number is HRE2017-0803-02 approved on 12-Oct-2018.

The following amendments were approved:

The age range of this research be raised to only 16 years or older, and that all participants may sign for themselves (where appropriate school permissions are also in place).

Any special conditions noted in the original approval letter still apply.

Standard conditions of approval

1. Research must be conducted according to the approved proposal
2. Report in a timely manner anything that might warrant review of ethical approval of the project including:
 - proposed changes to the approved proposal or conduct of the study
 - unanticipated problems that might affect continued ethical acceptability of the project
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 - serious adverse events
3. Amendments to the proposal must be approved by the Human Research Ethics Office before they are implemented (except where an amendment is undertaken to eliminate an immediate risk to participants)
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12. The Human Research Ethics Office may conduct audits on a portion of approved projects.

Should you have any queries regarding consideration of your project, please contact the Ethics Support Officer for your faculty or the Ethics Office at hrec@curtin.edu.au or on 9266 2784.

Yours sincerely



Catherine Gangeil
Manager, Research Integrity

belonging

in boarding school

The lived experience of boarding school design for female Aboriginal and Torres Strait Islander students in Western Australia.

+ belonging

The established premise that kin and country are essential to Aboriginal and Torres Strait Islander wellbeing¹ presents a serious dilemma for students that wish to pursue education opportunities without sacrificing identity and culture.²



+ remote

Access to secondary education is limited or non-existent in many remote Australian communities,³ requiring an extreme geographic relocation to attend highschool for many Aboriginal and Torres Strait Islander students.⁴



+ women

Gendered experiences such as those associated with domestic responsibility, marriage, pregnancy, sport and supervision by parents or siblings present an additional challenge for school attendance of young women.⁵



+ boarding

Over 5000 Aboriginal and Torres Strait Islander students are currently enrolled in boarding schools around Australia, with at least 500 female students in Western Australia⁶



= challenge

Experiences of dislocation, loneliness, and 'not fitting in' are widely identified as barriers to retention.⁸



+ design

The social function of the built environment and the potential of it's design to contribute positively to outcomes for occupants is well established.⁹



∴ research

Within the discipline of interior architecture,¹⁰ the design of culturally appropriate residential education spaces have not yet been formally examined as a tool with which to increase a sense of belonging for students.



How can interior design increase a sense of belonging for female Aboriginal and Torres Strait Islander students in Western Australian boarding schools?

"The pull between wanting a good future and wanting to maintain their identity was palpable, and unresolved."
(Rogers, 2017)

1. Ross, D. R. (1998). *Mountbatten Terrace: Australian Aboriginal Views of Landscape and Wilderness Contexts*. Australian Heritage Commission.

2. Rogers, J. (2017). *We need to know the true cost of Indigenous boarding school scholarships on communities*. The Conversation.

3. Australian Government - Department of the Prime Minister and Cabinet. (2017). *Closing the Gap - Prime Minister Report 2017*.

4. Coorey, H., Barakat, N., & Turnell, M. (2015). *Youth, belonging and loneliness: Identifying opportunities and barriers for Indigenous young people in remote communities*. Research Report No. 44.

5. Smith, A. (2014). *Aboriginal girls at risk of falling through the cracks at school*. Sydney Morning Herald.

6. Smith, A. (2009). *Indigenous Peoples and Boarding Schools: Comparative Study: Island Nations Perspective*. Forum on Indigenous Issues, New York.

7. Department of Social Services. (2017). *Total Requests and Number With Boarding Release Payment Entitlement in the 2016 Calendar Year, by Gender and Course Level - Unique Cases*. DSS Census.

8. El Bologna, F. (2017). *Ngadjiman Yawu: Our Journey: The Transition and the Challenges for Female Students Leaving Torres Strait Island Communities for Boarding Schools in Regional Queensland*.

9. Rogers, J., & Smith, M. (2016). *Stuck in the Middle: The effect of boarding schools for Aboriginal and Torres Strait Islander students: inquiry into educational experiences for Aboriginal and Torres Strait Islander students*. Submission 74.

10. Weller, G. J. (2012). *The transition experience to boarding school for male Aboriginal secondary school students from regional and remote communities across Western Australia*.

11. El Grant, E. (2016). *The architecture of detention: why design matters, in* *Discover - Reporting from the Australian frontlines: Housing in Exeter* (ed. by Sood, N. & Grewing, K.). Architecture Australia, 100(5), 49-55.

12. Keys, C., Merritt, P. (2014). *Translating the Design of Detention Settings for Aboriginal and Torres Strait Islander Communities*. Society of Architectural Historians, Australia and New Zealand, 31.

13. Turner, R. (2013). *From Study, House, Participation in the City*. Maryland, Washington: Lexington Books.

14. Weisman, L. K. (1994). *Discrimination by Design: A Feminist Critique of the Man-made Environment*. University of Illinois Press.

15. Merritt, P., & Keys, K. (2017). *The Emergence of an Architectural Anthropology in Aboriginal Australia: The work of the Aboriginal Environmental Research Centre*. *Architectural Theory Review*.

"It is timely for research on youth, and particularly Indigenous youth, to take seriously the conceptual framework of belonging."
(Coorey et al., 2015, p. 9)

Emma Whittingstee
Supervised by
Reena Tiwari and Rhonda Oliver
emma.whittingstee@coodook.com

"If Indigenous women are not part of the design process they are reflected within the social, political and economic values by their absence."
(Fredericks, 2014, p. 18)

Rogers, J. (2017). *We need to know the true cost of Indigenous boarding school scholarships on communities*. The Conversation.

Coorey, H., Barakat, N., & Turnell, M. (2015). *Youth, belonging and loneliness: Identifying opportunities and barriers for Indigenous young people in remote communities*. Research Report No. 44.

Fredericks, B. (2014). *There is nothing that identifies me in this place - Indigenous women's perceptions of health spaces and places*. *Culture Studies Review*, 15(2).

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Participant Information

Dear participant or guardian,

My name is Emma Whettingsteel and I am a student at Curtin University. As part of my studies I am looking to do some research which you may be able to help with.

What is the research about?

This research is about understanding what it is like to go to boarding school from the perspective of Aboriginal and Torres Strait Islander girls in Western Australia, and finding out how the interior architecture of boarding schools can be designed to be better for them. To try and understand this, the idea of 'belonging' will be used as a way to measure how successful the design of boarding schools are.

Why do I need your help?

There is not very much research about the experience of boarding school for Aboriginal and Torres Strait Islander students, especially in Western Australia and especially for girls. There is also no research about how to design appropriate and helpful boarding school spaces specifically for this group. I believe that there are lots of ways that boarding schools could help students to feel a greater sense of belonging while they are away from home through the way that spaces are designed. It is important to talk to students directly to understand what these things are and what the best way to do them is.

What am I asking?

I am asking you to share your experiences of boarding school through visual activities, including drawing and photography, while talking along the way. In this method it is important that participants are co-researchers, which means I am also asking you, or your child, to be involved in decisions about how we should do the research and what should happen with it.

What will happen?

This research will happen over multiple sessions, some of which will be audio recorded so that I can listen to what is being said instead of trying to take lots of notes. Research with current students is proposed over 5 short group sessions of less than an hour, for past students all five activities will take place within a 1 hour sitting, individually or in groups.

1

First we will discuss ethics for the project, how the activities will work and what you are comfortable with. You will be asked about what belonging means and if you think it makes sense as a theme for the research.

2

If you're a current student, the next thing is for you to give me a tour around your boarding school, explaining the different spaces and taking photos along the way. You're encouraged to continue taking photos after the tour to talk about later. If you are a past student you are invited to bring along a collection of photos that describe your boarding school instead.

3

The next time we meet we will do two activities. The first one is drawing a map between where you are from and where you go to boarding school. The second activity is to talk about what belonging means, and draw a place where you feel a sense of belonging. Drawing materials and snacks will be provided.

4

The next time we meet there are two more activities, the first one is to physically describe your boarding school using the photos that you took. This activity involves looking at the photos, talking about what you can see, and adding extra information with drawings and stories. The second activity is to arrange the photos in order of 'least amount of belonging' to 'most amount of belonging' and talk about the reasons why. Drawing materials and snacks will be provided.

5

In the final session we discuss the themes from all the talks we've had and think about how these could be used to design boarding schools in the future. The activity in this session is to draw an ideal or fantasy boarding school building that helps you to feel a sense of belonging. We will also discuss what you would like to happen with the research and if you would like to present it to an audience, for example in an exhibition or as a booklet. Drawing materials and snacks will be provided.

What happens with the information you give me?

All information that you give me during our talks will remain 'strictly confidential' meaning that no personal information (i.e., name, address) will be linked in any way with the information you provide during an interview, only me and my four supervisors will have access to it. In addition, all hardcopy information will be kept in a locked filing cabinet in my supervisor's office at Curtin University. No one from a government department or your school will know what you say to me and I will not play your interview to anyone else, or talk about you to anybody. The information that you give me will be written into a final research report, which will be made available to you upon request. No information you give me will be published with your name attached to it or without you being informed first. Being involved with this research is voluntary and you are free to withdraw anytime, without explanation, questioning or penalty.

What else do you need to know if you want to participate?

You have already done the hardest part which is to read and think about this information letter. If you would like to participate in this research you can let your Aboriginal Liaison Officer or Head of Boarding know (if you or your child are a current student), if you are a past student you can give me a telephone call, email or text at any time that suits you. Alternatively, there are a range of other people involved in this project that you could speak to instead, these people are listed on the blue 'contact details' page.

Thankyou so much for taking the time to read this information and to consider helping me with this research, I look forward to speaking with you soon.

Very kind regards,

Emma Whettingsteel
PhD Candidate in the School of Design and Built Environment
Curtin University



Curtin University

CRICOS Provider Code 00301J (WA)

Consent for Participants

Belonging in boarding school: The lived experience of boarding school design for female Aboriginal students in Western Australia.

For parents and guardians

Name of Child.....

Name of School.....

Dear participant or guardian,

Thank you for agreeing to help me with my research. Please carefully read or listen to the information below being read to you before signing this consent form at the bottom of the page. Your involvement in this research will be greatly valued.

I (print name), hereby consent to participate in the research and understand that:

- I have read, or had read to me, and understand the information in the information letter provided explaining the research.
- I have been given the opportunity to ask questions about the research and have had these questions answered to my satisfaction.
- I have been given the opportunity to talk to alternative people who have know of the research and been provided with their contact details.
- I understand that involvement in this research will include audio-recording.
- I understand that the information provided will be kept strictly confidential and that no personal information (i.e., name, address) will link me with the information I share.
- I understand that the information provided will only be used for the purposes of this research.
- I understand this information will be used to generate a final research report and that no nformation will be published (i.e., journal articles) without been given notice before.
- I understand that I can have a copy of the final research report if I ask.
- I understand that participation in this research is voluntary and that I do not have to answer any questions that I do not want to.
- I understand that I am free to stop or withdraw from participating in the research at any time, without explanation, questioning or penalty.
- I understand that my involvement in this research is not an expectation of the school.
- I freely agree to participate in this research and understand what I am being asked to do.

Signature: Date:

OFFICE USE

Where consent has been recieved via alternative means such as telephone conversation, sms or email, documentation of this has been attached to this form.

Contact Details

Belonging in boarding school: The lived experience of boarding school design for female Aboriginal students in Western Australia.

The research has been approved by the Curtin Human Research Ethics Committee, Australian Independent Schools Western Australia (AISWA) and, if applicable, your School Principal, Head of Boarding and Aboriginal Liason Officer. Below are the people you can contact if you would like to talk more about any aspect of the project:

Primary Researcher

Emma Whettingsteel
PhD Candidate, School of Design and Built Environment, Curtin University
Email: emma.whettingsteel@postgrad.curtin.edu.au

Supervisors

Professor Reena Tiwari (Primary Supervisor)
School of Design and Built Environment, Curtin University
Ph: +61 8 9266 4730 Email: r.tiwari@curtin.edu.au

Professor Rhonda Oliver (Co Supervisor)
School of Education, Curtin University
Ph: +61 8 9266 2169 Email: rhonda.oliver@curtin.edu.au

You may contact Reena or Rhonda with any queries or concerns. Alternatively, this research is being monitored by a Cultural Advisor and an Advisory Group (AG) specifically formed to provide counsel and guidance to me in all aspects of the research, you may also contact any of them to discuss the project:

Advisory Group

<input type="text"/>	Email: <input type="text"/>

Cultural Advisor

<input type="text"/>	Email: <input type="text"/>
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Appendix H: Invitation to Advisory Group

Invitation and Confidentiality Agreement for Members of the Advisory Group 11th of September, 2017

Dear ,

I am writing to officially invite you to be a member of the Advisory Group to the PhD research project; *'Belonging in boarding school: The lived experience of boarding school design for female Aboriginal students from remote Western Australian communities'*, and to outline your rights and responsibilities in this role. The primary objective of this research is to demonstrate how the design of boarding schools can have positive or negative outcomes for Aboriginal and Torres Strait Islander young women moving from remote locations. The secondary objective, by which the first will be achieved, is to understand the experience and impacts of boarding school for Aboriginal and Torres Strait Islander young women moving from a remote location in Western Australia. The research will use participatory methods to document the lived experience of current and past students, as well as of the broader boarding school community.

The research is pending candidacy approval by Curtin Graduate Research School and Ethics approval by Curtin Human Research Ethics Committee. The project is under the direct supervision of:

- Professor Reena Tiwari, School of Built Environment, Curtin University
Ph: +61 8 9266 4730 Email: R.tiwari@curtin.edu.au

In response to the recommendation by the *Guidelines for Ethical Research in Australian Indigenous Studies* for Indigenous people to be 'equal participants in the research process' and for ongoing 'communication with relevant individuals and organisations', an Aboriginal Advisory Group will be formed (AITSIS, 2012, p.10). Your participation as a member of the Advisory Group is essential to the quality, capability and credibility of this research. In your capacity as an Advisory Group member you will be responsible for providing guidance on all aspects of this research, as well as critically commenting and challenging any incorrect assumptions. This guidance may be in the form of email, phone conversations or informal face to face meetings as is convenient to you. The expected time commitment is approximately an hour per month. Communication will be primarily by email or individual conversations as required, an introductory presentation will be organised soon.

As an Advisory Group member it is important to recognize that you are in a position of 'trust' and it is expected that you will at all times respect the privacy and right to confidentiality that all people involved in this research are entitled to. It is also expected that any information you come in contact with will not be used in public discussion or used for any other purpose than this research. Owing to this position of 'trust' the Advisory Group members will be asked to sign a 'Confidentiality Agreement' before participating in this research in any capacity.

Please feel free to contact myself, Professor Reena Tiwari via the contact details provided if you would like to discuss this research further before signing this form which will act as a 'Confidentiality Agreement'. Similarly, if you have any further questions or concerns about the research and would like to contact an independent person regarding the research, please contact the University Research Ethics Officer, Ms. Alina Dmitrieva on Ph: (08) 9266 2784 or via email at: hrec@curtin.edu.au. It is very important that you carefully read and consider the following information outlined below before signing at the bottom of this page. I acknowledge that:

- I have read and understand the information in this letter explaining the research.
- I have been given the opportunity to ask questions about the research and have had these questions answered to my satisfaction.

- I have been given the opportunity to talk to alternative people who have knowledge of the research and been provided with their contact details.
- I understand that as an Advisory Board member I am in a position of trust and it is expected that I will at all times respect the privacy and right to confidentiality that all participants involved in this research are entitled to.
- I understand that any information I come in contact with will not be used in public discussion or used for any other purpose than the present research.
- I understand this information will be used to generate a final research report and that no information will be published (i.e., journal articles) without been given prior notice.
- I understand that I can have a copy of the final research report upon request.
- I understand that participation in the Advisory Group is voluntary and that I am free to stop or withdraw from participating in the research at any time, without explanation, questioning or penalty.
- I freely agree to participate in this research and understand what I am being asked to do.

I..... (print name) hereby understand the above conditions.

Signature: Date:.....

Thank you for agreeing to be a part of this research, your contribution will be very valuable and is deeply appreciated.

Warm regards,
 Emma Whettingsteel
 PhD Candidate
 School of Built Environment
 Curtin University
 Kent Street, Bentley, Perth
 Western Australia, 6102
 Mobile:
 Email: emma.whettingsteel@postgrad.curtin.edu.au

Reference:

Australian Institute of Aboriginal and Torres Strait Islander Studies. (2012). *Guidelines for Ethical Research in Australian Indigenous Studies*. Canberra.



Invitation and Confidentiality Agreement for the role of Cultural Advisor,
5th of September, 2017

Dear

I am writing to request your support to the PhD research; '*Belonging in boarding school: The lived experience of boarding school design for female Aboriginal students from remote Western Australian communities*' by being a Cultural Advisor to myself as a non-Aboriginal researcher working with Aboriginal young people. This letter also outlines your rights and responsibilities in this role. The research seeks to understand the experience of Aboriginal and Torres Strait Islander girls in Western Australian boarding schools and will focus on how boarding schools can be designed to allow a greater sense of belonging for current and future users.

The research has been approved for candidacy by Curtin Graduate Research School and has not yet entered into an Ethics approval process with Curtin Human Research Ethics Committee. The project is under the direct supervision of:

- Professor Reena Tiwari, School of Built Environment, Curtin University
Ph: +61 8 9266 4730 Email: R.tiwari@curtin.edu.au
-

In response to the recommendation by the *Guidelines for Ethical Research in Australian Indigenous Studies* for Indigenous people to be 'equal participants in the research process' and for ongoing 'communication with relevant individuals and organisations', an Aboriginal Advisory Group has been formed (AITSIS, 2012, p.10). Your role as a Cultural Advisor is independent to this Advisory Group but is equally essential to the quality, capability and credibility of the research. In your capacity as a Cultural Advisor you will provide guidance to myself regarding appropriate engagement with Aboriginal young people, specifically young women. As opposed to the Advisory Group which is responsible for guidance at a project level, your role as a Cultural Advisor will be in regards to my own conduct, expectations and behaviour when interacting with students. This includes commenting on aspects of the research such as proposed methods and interview questions that may be culturally or age inappropriate and challenging any incorrect assumptions. This guidance may be in the form of email, phone conversations or informal face to face meetings as is convenient to you. The expected time commitment will fluctuate throughout the project but may equate to an average of about an hour per month in contact.

As a Cultural Advisor to this project it is important to recognize that you are in a position of 'trust' and it is expected that you will at all times respect the privacy and right to confidentiality that all people involved in this research are entitled to. It is also expected that any information you come in contact with will not be used in public discussion or used for any other purpose than this research. Owing to this position of 'trust' you are asked to sign a 'Confidentiality Agreement' before participating in this research in any capacity.

Please feel free to contact myself, Professor Reena Tiwari or via the contact details provided if you would like to discuss this research further before signing this form which will act as a 'Confidentiality Agreement'. Similarly, if you have any further questions or concerns about the research and would like to contact an independent person regarding the research and the ethical requirements of Curtin University, please contact the University Research Ethics Officer, Ms. Alina Dmitrieva on Ph: (08) 9266 2784 or via email at: hrec@curtin.edu.au. It is very important that

you carefully read and consider the following information outlined below before signing at the bottom of this page. I acknowledge that:

- I have read and understand the information in this letter explaining the research.
- I have been given the opportunity to ask questions about the research and have had these questions answered to my satisfaction.
- I have been given the opportunity to talk to alternative people who have knowledge of the research and been provided with their contact details.
- I understand that as a Cultural Advisor I am in a position of trust and it is expected that I will at all times respect the privacy and right to confidentiality that all participants involved in this research are entitled to.
- I understand that any information I come in contact with will not be used in public discussion or used for any other purpose than the present research.
- I understand this information will be used to generate a final research report and that no information will be published (i.e., journal articles) without been given prior notice.
- I understand that I can have a copy of the final research report upon request.
- I understand that participation as a Cultural Advisor is voluntary and that I am free to stop or withdraw from participating in the research at any time, without explanation, questioning or penalty.
- I freely agree to participate in this research and understand what I am being asked to do.

I..... (print name) hereby understand the above conditions.

Signature: Date:.....

Thank you for agreeing to be a part of this research, your contribution will be very valuable and is very deeply appreciated.

Warm regards,
Emma Whettingsteel
PhD Candidate
School of Built Environment
Curtin University
Kent Street, Bentley, Perth
Western Australia, 6102
Mobile:
Email: emma.whettingsteel@postgrad.curtin.edu.au

Reference:

Australian Institute of Aboriginal and Torres Strait Islander Studies. (2012). *Guidelines for Ethical Research in Australian Indigenous Studies*. Canberra.

Appendix J: Letter to school principals

Belonging in boarding school: The lived experience of boarding school design for female Aboriginal and Torres Strait Islander students in Western Australia.



22nd of November, 2018

Dear Principal,

Thankyou for the interest in my PhD research project: *Belonging in boarding school: The lived experience of boarding school design for female Aboriginal and Torres Strait Islander students in Western Australia.* The goal of this research is to understand the experience of belonging for female Aboriginal and Torres Strait Islander students who attend boarding school in Western Australia, specifically in relation to interior architecture.

I write to seek support and permission from you to speak with students from your school about their experiences. The research will be through a combination of informal talking and visual activities over several short sessions, designed to be minimally disruptive and enjoyable. The project has achieved candidacy by Curtin Graduate Research School, been approved by the Curtin Human Research Ethics Committee, and your permission meets ethical requirements by the Association of Independent Schools of Western Australia. The project is under the direct supervision of:

- Professor Reena Tiwari, School of Built Environment, Curtin University
Email: R.tiwari@curtin.edu.au Ph: +61 8 9266 4730
and
- Professor Rhonda Oliver, School of Education, Curtin University
Email: rhonda.oliver@curtin.edu.au Ph: +61 8 9266 2169

You may contact Reena or Rhonda with any queries or concerns. Alternatively, this research is being monitored by an Advisory Group specifically formed to provide counsel and guidance to me who you may also contact to discuss the project:

- [Redacted] Email: [Redacted]

Please return the attached letter of consent with your signature at your earliest convenience if you are comfortable for your school to be involved with the project.

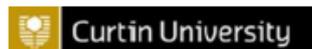
Thankyou for your time and support,

Kind regards,

Emma Whettingsteel
PhD Candidate
School of Built Environment
Curtin University
emma.whettingsteel@postgrad.curtin.edu.au

Appendix K: School principal consent

Belonging in boarding school: The lived experience of boarding school design for female Aboriginal and Torres Strait Islander students in Western Australia.



Letter of Consent from School Principal

I consent for students at my school to participate in the proposed research, conditional to their own consent, and the consent of their parent or guardian. By signing this letter I acknowledge that:

- I have read information provided explaining the research.
- I have been given the opportunity to ask questions about the research and have had these questions answered to my satisfaction.
- I have been given the opportunity to talk to alternative people who know of the research and have been provided with their contact details.
- I understand that involvement in this research will include audio-recording, drawing, and photography.
- I understand that information will be kept strictly confidential and that no personal information (i.e., name, address) will link students with the information they share.
- I understand that the school will not be named in the final research report, or in any associated publications, and will be referred to by 'School A' or 'School B'.
- I understand that the information provided will only be used for the purposes of this research.
- I understand this information will be used to generate a final research report and that no information will be published (i.e., journal articles) without been given notice prior.
- I understand that I can have a copy of the final research report if I ask.
- I understand that participation in this research is voluntary and that students do not have to answer any questions, or participate in any activity that they do not wish to.
- I understand that I am free to stop or withdraw consent for the research at any time, without explanation, questioning or penalty.
- I understand that student involvement in this research is not an expectation of the school.
- I freely agree for students at my school to participate in this research.

Signature: Date:

Print name:

School:

Appendix L: 2- page example transcript

Emma: Yeah. It's a hard one.

Speaker 1: Well. This is where I think boys schools have got it right, right? Is where you're in year 8 and 9, you're in those big rooms where you're sharing with like ... I know some boys schools who do this, I know some don't but, they have just one big space and then it's like there's like 5 boys in that room they do have sort of a section off but its all still a room together.

Emma: Yeah its kind of like a little den of beds.

Speaker 1: Yeah I think that's actually sort of good for home sickness because then you can't hide yourself. I know in my room by myself, especially because I never had a roommate, I could cry in my room and no one would even hear me.

Emma: Is that what you wanted?

Speaker 1: I mean I think you don't need that.

Emma: Yeah even if you want that-

Speaker 1: The only way to over come homesickness is to fake it. Just like that fake it until you make it stage, that's the only way you're going to cure home sickness because it's going to happen every time. The more that you can just fake that you're okay, the more yeah. It's just like the more you fake it the more you'll get better.

Emma: Just fill up your time with stuff and eventually it will all be-

Speaker 1: Yeah. And also just having that being able to talk to people and to being able to hide by yourself and just make yourself more upset. Because I know when I was by myself I could just convince myself to be more upset whereas the girls-

Emma: Kind of like work yourself up into a more dramatic state?

Speaker 1: Yeah and when girls come in and be like, "Okay get out of your room come sit in the common room have a chat with us." It just sort of breaks it up which is good. That's why I think the more rooms is sort of better. Like the more people in a room..

Emma: Yeah. Do you think even just at the beginning or all the way through?

Speaker 1: Yeah I think just the beginning because when you get to those years of 10, 11, 12, you're wanted to buckle down and you're wanting to have your own space. And especially for girls, you're getting to that stage where you're getting older and do you just want that whole space to yourself kind of thing.

Emma: What do you ... this is just you purely guessing and maybe hypothetically, if you were going to uni for the first time, and you hadn't been to boarding school or you had been

your bed not in that corner, you don't like your bed in a corner, you like your bed in the middle of the room-

Emma: Or facing the window or getting the light in a certain direction.

Speaker 1: Yeah you can't do that. So I think those type of things also limit your room and your rooms do feel a little depressing to be honest and you have to spice it up to make it like ... you have to put things on your walls and stuff to make it sort of ... I don't do it any more but that's just cause I don't have time for that.

Emma: I guess it gets to a certain point where you already are familiar with the place and you're just busy.

Speaker 1: And also study rooms are really important. I think if you're going to create study rooms, like we have one big study area, but people go there to group study so if you got four groups group studying, they're not all going to be in one big building in one big room. So if there was a way to section off rooms that would be pretty cool.

Emma: Yup. But you'd need to be able to change it based on the use, is that what you're saying?

Speaker 1: Yeah.

Emma: So somehow use it as a solo study and sometimes it's a big group like social kind of studying?

Speaker 1: I know our library does this, we have like that big area, but what they do is they section off three rooms and then those three rooms are done for group study and then there's an area that's sort of common and there's a door. Its like if you have a building and there's three rooms around the edges but the door comes in here so its just a big, the birth of it is sort of this, and so that's where you do your quiet private study but the rest of the rooms are sort of useful.

Emma: Yeah. Okay.

Speaker 1: I don't know if that works but or if you even have that time.

Emma: You could go even further with it and be like what if the walls were like more operable. Or they were more like pods inside of different space and you could just put them all to the side if you didn't want to use them or you could get them out if you didn't want to use them. Like flexible.

Speaker 1: Yeah.

Emma: What about, not necessarily for you but from your experience and what you've noticed, how to deal with home sickness type things in the design. Do you think that's possible?

Speaker 1: In the design?

Current_B_02 (Completed 09/11/18)
Transcript by Rev.com

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