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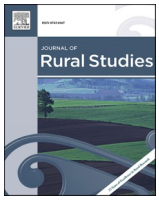

Being and belonging – identifying "invisible" children and young people's voices within educational contexts in regional, rural and remote Australian communities: A systematic literature review of empirical studies☆

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ABSTRACT

This systematic literature review (SLR) examines empirical research on marginalised children and young peoples' sense of belonging in regional, rural and remote (RRR) Australian educational contexts. Following PRISMA Guidelines and utilizing JBI quality appraisal tools, five databases were searched. Inclusion criteria encompassed English-language, online full-text peer-reviewed empirical studies from RRR Australia. Fourteen studies (four qualitative, ten cross-sectional) were included in the final corpus and synthesised employing Bronfenbrenner's socio-ecological model and thematic analysis. The synthesis revealed six themes that influence sense of belonging: 1) Relational factors; 2) Fostering supportive relationships, sense of community and school connectedness factors; 3) Recognition of diversity and individuality factors; 4) Factors of adaptation and fitting in; 5) Role of school and community for engagement factors; and 6) Spatial design and architectural factors. The review highlights the need for inclusive practices and policies to foster belonging in RRR Australian educational settings. The limited studies identified and emphasis on student voice inclusion in the 2013 UN Convention on the Rights of the Child amendment, underscore the need for expanded belonging research in RRR settings. Gathering diverse perspectives is essential to develop inclusive policies and practices that support marginalised cohorts' visibility, belonging, connectedness, and overall health and wellbeing.

1. Introduction

The voices of marginalised and disadvantaged children and young people, particularly those in regional, rural and remote (RRR) Australian communities, remain largely unheard in educational research and policy development (Halsey, 2018). Despite the United Nations Convention on the Rights of the Child (UNCRC, 1989) establishing a compelling mandate for ensuring children's voices are heard on matters affecting their lives, many educational decisions continue to be made without meaningful input from those most affected (Gal and Duramy, 2015). For marginalised children in RRR contexts, concerns have been raised about potential silencing effects stemming from factors such as geographical distance from decision-making centres, documented resource disparities, and predominantly Metropolitan policy orientations (Roberts & Fuqua, 2021; Halsey, 2018). Examining whose voices are heard, whose remain silent, and whether participation extends beyond tokenistic inclusion is essential. As Lundy and Kilkelly (2017, 2018) has established, genuine adherence to the UNCRC requires not only that children have space to express their views, but that their voices are given due weight in matters affecting them. This necessitates exploring the presence and the power of diverse children's voices in educational research and practice, particularly for those in RRR communities where structural barriers may impede meaningful participation (Graham et al., 2018). Such exploration is foundational to developing more inclusive approaches to belonging that authentically reflect the lived experiences of all students (Mitra, 2018).

This Systematic Literature Review (SLR) aims to examine the reported interpretations and understandings of what it means for marginalised and disadvantaged regional, rural or remote (RRR) children and young people to feel a sense of belonging within educational

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contexts in Australia. According to Ahn and Davis (2020), a sense of belonging can be defined as "a feeling of ease, safety, being connected and respected" (p. 628) within one's community. Closely related to the construct of social capital (Ahn and Davis, 2020), a sense of belonging involves trust, social networks and participation within these communities. Belonging has been recognised as a fundamental human need, with significant implications for educational and developmental outcomes (Allen et al., 2021), psychosocial health and wellbeing, school motivation (Osterman, 2000) and social emotional functions including self-esteem, behaviour and academic achievement (Korpershoek et al., 2020).

For this review, we define several key terms that are used in the literature to provide clarity and consistency throughout our analysis. We conceptualise 'invisibility' as operating at multiple interconnected levels: students 'subjective experiences of being unseen, unheard, or unrecognised within educational settings, and the objective absence of their voices from research, policy discussions, and educational decision-making processes. This dual conception recognises both the phenomenological reality of marginalisation – how students experience being overlooked or silenced – and the structural gaps in knowledge and representation that perpetuate these experiences (Cook-Sather, 2020). Invisibility thus encompasses both the lived experience of exclusion and the systemic processes that render certain groups absent from discourse, creating a cycle where unrepresented perspectives remain unaddressed in educational policy and practice. This differs from 'marginalisation', which is defined as the social process of being relegated to the periphery of social importance due to structural inequities (Cuervo, 2014). 'Disadvantage' refers to a comparative lack of access to resources, opportunities, or supports that impact educational outcomes (Lamb et al., 2020). Given that these terms are regularly used in the literature, we include them in this review. We also use the Australian Statistical Geography Standard (ASGS) Remoteness Structure (Australian Bureau of Statistics, 2018) to classify 'regional', 'rural' and 'remote' locations, with 'regional' areas being those outside major cities but with populations above 10, 000, 'rural' referring to areas with smaller populations and reduced access to services, and 'remote' designating locations with very restricted accessibility to goods, services, and opportunities for social interaction. Throughout this review, 'children' and young people' refer to individuals aged 4–18 who are engaged with educational institutions. At the same time, 'student voice' specifically denotes their expressed perspectives, opinions, and experiences within educational contexts. (as specified by Children's Rights Queensland).

1.1. Holistic view to belonging

The Sustainable Development Goals (SDGs) and subsequent United Nations (UN) interpretations have reinforced the UNCRC mandate, emphasising a holistic approach to children and young people's wellbeing, encompassing physical, mental and social dimensions (UN Committee on the Rights of the Child, 2013). In education contexts, this holistic view underscores the critical importance of fostering a sense of belonging, recognising it as integral to students' overall wellbeing and social health (SDG3; SDG4). For children in RRR settings, where educational resources and opportunities may be limited, actively incorporating their perspectives in decision-making is essential for creating genuinely inclusive environments (Harris and Manatakis, 2013). Robinson (2014) highlights that meaningful implementation of these principles requires going beyond tokenistic inclusion to fundamentally reshaping educational environments and experiences based on children and young people's expressed needs. However, the extent to which these holistic principles have been implemented and evaluated specifically within RRR Australian educational contexts remains unclear, creating uncertainty about how geographic and resource constraints may affect their practical application.

When policymakers and educators make decisions without student input, they risk implementing well-intentioned but misguided initiatives that fail to address the real needs of marginalised groups (Fielding, 2001). In contrast, actively listening to marginalised student cohorts provides invaluable insights into their nuanced challenges in developing a sense of belonging (Cook-Sather, 2020). However, current approaches to student voice have limitations that require critical examination. Lundy and Kilkelly (2017) seminal work established that genuine adherence to the UNCRC requires ensuring children and young people's views are given due weight, meaning that their voices are not simply heard. Building on this foundation, Mayes (2018) further emphasised the importance of understanding the socio-political contexts in which student voices are expressed, so that marginalised children and young people can meaningfully participate in educational decision-making processes. Despite efforts to hear students' voices, there remains a need to scrutinise whose voices are privileged and/or invisible or silenced within these efforts (Cook-Sather, 2020), as well-intentioned initiatives can reinforce existing power structures. In doing so, advantaged voices may be further amplified while marginalising others (Fielding, 2001).

1.2. Empirical research about belonging

Empirical studies support the importance of belonging in educational settings for children and young people (Greenwood and Kelly, 2019; St-Amand et al., 2017). Korpershoek et al. (2020) for example, conducted a meta-analysis examining the relationships between school belonging and various student outcomes in secondary education. Their findings highlight the importance of belonging for students' motivation, social-emotional wellbeing, behaviour, and academic achievement, emphasising the need for fostering inclusive and supportive school environments. Similarly, Slaten et al. (2016) reviewed the historical development of school belonging research across a variety of different professional disciplines including education, psychology and sociology. In their review, they emphasised that school belonging has been consistently identified as a significant factor in predicting both academic achievement and psychological wellbeing in students. The Slaten et al. (2016) review emphasised that marginalised students often struggle to develop a sense of belonging in educational settings. They highlighted that many existing interventions aimed at fostering school belonging have been developed without adequate consideration or understanding of the experiences and needs of underrepresented minority student groups. Together, these studies underscore the need for more research on the factors influencing belonging in educational settings, and the development and evaluation of interventions to promote belonging among students. While these studies establish belonging's importance across diverse educational settings, there is limited systematic examination of how these relationships manifest specifically within RRR Australian contexts, where geographical isolation and resource limitation may create distinct belonging dynamics.

1.3. Cross-cultural research with an emphasis on belonging

Cross-cultural research further emphasises the significance of belonging in education within culturally diverse settings. Chiu et al. (2016) conducted a study examining students' sense of belonging at school in 41 countries, highlighting the variability in belonging across different cultural contexts and its implications for educational outcomes. The study suggested that cultural factors such as the degree of egalitarianism verses hierarchical societal structures along with family characteristics including immigrant status language spoken and home and socio-economic status, play a significant role in shaping students' sense of belonging across diverse national contexts. As such, educators should consider these factors when designing interventions to promote belonging in diverse educational settings. Yet research examining how these cultural factors interact with the unique geographic, demographic, and resource characteristics of RRR Australian educational settings remains sparse, limiting understanding of context-specific belonging

interventions.

1.4. Belonging as a multifaceted concept

Sense of belonging is a multifaceted construct informed by a complex interplay of structural, interpersonal and individual factors (El Zaatari and Maalouf, 2022), particularly in diverse educational settings. Consequently, it enfolds a range of theoretical frameworks, including socio-ecological development models and specific theories of belonging. Here, Bronfenbrenner's ecological system theory (1979) offers an overarching frame, which posits that a child's development and sense of belonging are influenced by multiple, interconnected environmental systems. This model emphasises the interplay between immediate (microsystems) settings, connections between settings (mesosystems), external influences (exosystems), broader cultural context (macrosystem) and changes over time (chronosystems). Complementing this, Baumeister and Leary's (2017) "belongingness hypothesis" (p. 497) proposes that the need to belong is a fundamental human motivation, influencing cognitive processes, emotional patterns, and behaviour. Maslow's hierarchy of needs (1943) similarly positions belonging as a critical human need, essential for self-actualisation. Somewhat differently, Dweck (2021) proposed a unified theory of motivation, personality and development that incorporates the need for belonging as a fundamental human need, providing a foundation for understanding the role of belonging in shaping individuals' goals, representations, and behaviours. As a conceptual assemblage, we understand belonging to be essential to a student's welfare and capacity to engage in positive learning. However, the application of these theoretical frameworks to RRR educational contexts requires examination, as geographic isolation, limited resources, and distinctive community structures may alter the traditional ecological relationships proposed in these models.

1.5. School belonging

Within education contexts, Goodenow's (1993) concept of school belonging highlighted the importance of students feeling accepted, respected and supported by others in the school environment. Wormington et al. (2016) went further, investigating the moderating role of school belonging in the relationship between peer victimisation and adolescent adjustment, highlighting the protective role of belonging in mitigating the negative effects of peer victimisation on adolescents' mental health and academic functioning. More recently, Allen et al.'s (2021) model of school belonging integrates these perspectives, proposing that belonging is shaped by academic, social and environmental factors within the school ecosystem. These models and frameworks collectively underscore the multifaceted nature of belonging and its crucial role in student wellbeing, providing a robust theoretical foundation for examining how marginalised and disenfranchised children and young people experience, perceive and conceptualise belonging in RRR educational settings in Australia. The extent to which these models adequately capture belonging experiences in RRR settings, where environmental factors include geographic isolation, limited-service access, and distinctive community characteristics, requires systematic investigation.

1.6. Rural, regional and remote educational contexts

Educational experiences in RRR settings are characterised by unique challenges including geographical isolation, limited educational choices, and reduced access to specialised services (Halsey, 2018). Existing research suggests that students in these contexts may face compound disadvantages yet may also benefit from stronger community connections and place-based identities. However, examination of how these distinctive contextual factors influence belonging experiences for marginalised students remains limited. The intersection of geographic isolation with other forms of marginalisation creates complex dynamics that may not be adequately captured by research conducted in metropolitan settings, highlighting the need for context-specific investigation of belonging in RRR educational environments.

The UN's unequivocal mandate for children and young people's rights (UNCRC, 1989), with its emphasis on holistic wellbeing and belonging, coupled with the glaring discrepancy between rhetorical commitment to student (referred to as children and young people) voice and actual practice, motivates our research focus on exploring whose voices are being heard within empirical studies and, crucially, whose remain silent or invisible specifically within Australia RRR locations. With current approaches to student voice often failing to capture the full spectrum of experiences, particularly of marginalised and disenfranchised groups, this study seeks to critically examine the existing empirical research to identify patterns of perceived challenges concerning aspects of belonging in educational settings.

1.7. Review question

The following research question was developed in consultation with education academics with a strong ethos for social justice situated in a regional university in Australia: What are 'invisible', that is disadvantaged or marginalised, children and young people's perceived challenges concerning sense of belonging and voice within regional, rural and remote educational contexts in Australia?

2. Method

This SLR was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement recommendations (Moher et al., 2009). The protocol for this review was registered with PROSPERO; registration number CRD42024501654 (https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42024501654). Each stage of the methodology was completed by seven independent reviewers, [AB, EL, GB, AL, ND, TL, YP]; and where discrepancies arose, reviewers [TL & AL] were consulted. All reviewers were integral to the review process from protocol development to the final draft and authorship of the manuscript. The results of the search and progression of screening for the research question is displayed in Fig. 1.

2.1. Methodological approach

This review adopted an inclusive approach to marginalised and disenfranchised groups while maintain focus on RRR educational contexts. Several methodological decisions require justification:

Inclusion of diverse marginalised groups: While each marginalised group (Indigenous students, students with disabilities, LGBTQ + youth, CALD students) has distinct experiences of marginalisation, this review seeks to identify cross themes and systemic factors that inform belonging across different forms of marginalisation in RRR contexts. This approach recognises that students may hold multiple marginalised identities and that RRR settings create shared challenges (such as geographic isolation and limited resources) that transcend specific identity categories. By examining diverse groups within a unified framework, we aimed to identify both universal and group-specific factors affecting belonging in RRR educational settings.

Inclusion of multiple educational levels: Educational transitions from early childhood through tertiary education represent critical junctures for belonging development, particularly in RRR areas where educational options may be limited and transitions often require geographic relocation. Including diverse educational contexts (primary, secondary, tertiary, and alternative, education settings) allows examination of how belonging needs and challenges evolve across the educational lifecycle while acknowledging that RRR students may have fewer choices and face unique transition challenges compared to their metropolitan counterparts.

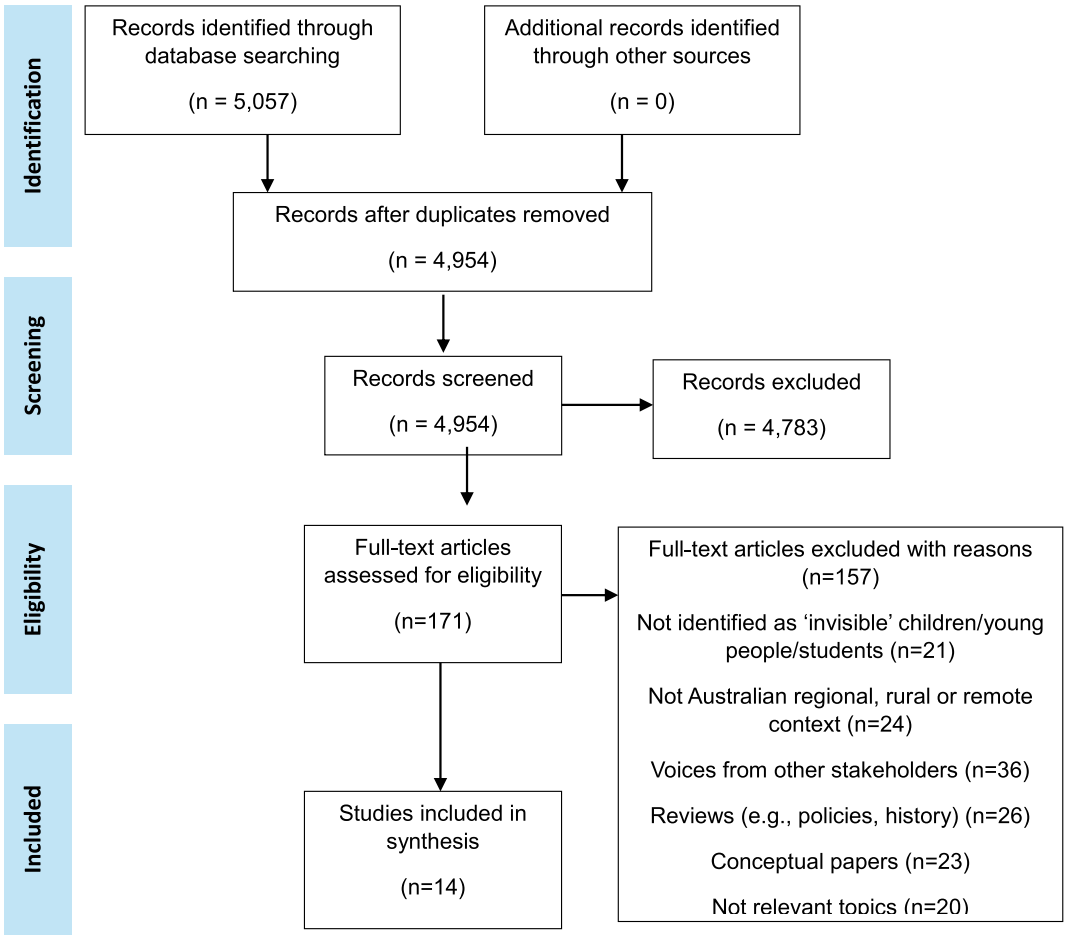

Fig. 1. PRISMA flow diagram of review search.

Inclusion of varied RRR educational experiences: The review included both students attending educational institutions within RRR areas and those from RRR backgrounds attending institutions in metropolitan areas (such as boarding schools). This dual focus captures the full spectrum of RRR educational experiences, recognising that geographic isolation affects belonging whether students remain in local settings or relocate for educational opportunities.

2.2. Eligibility criteria

Articles with various study designs were considered eligible if they were empirical and peer-reviewed (e.g., journal articles, book chapters) with full text available online and written in English and examined the perspectives of identified "invisible" children and young people in RRR Australia. There were no filters placed on the date of publication. In addition, articles had to have thematic relevance to the research question and meet the following criteria.

(1) The population studied were children and/or young people who were identified as "invisible" (i.e., marginalised or disadvantaged) in RRR Australian communities; and
(2) Data were reported on identified "invisible" children and young people's perspectives and/or voices relating to the research question under review.

Studies were excluded if they were reviews/literature reviews, conference abstracts, editorials, newspaper articles, opinions, preface, and brief communications, not empirical and peer-reviewed in nature, not accessible in full text online, not written in English, and did not report on marginalised and/or disadvantaged children's and/or young people's perspectives regarding belonging in educational contexts in RRR Australia.

2.3. Search strategy

The data collection employed searches within the Web of Science, ERIC, ProQuest Academic, Scopus, A + Education (Informit), and VOCEDplus databases. Google Scholar was included in the initial search strategy but provided no new results, therefore was excluded in the final search. In addition, a manual search, of reference lists from eligible manuscripts, was conducted, resulting in no additionally included articles. The search strategy included the terms, "young person", "child", "school", "rural", "belong*" and related synonyms. The search terms and limiters/filters were modified to the parameters of each database and used in conjunction with the appropriate filters. The general search strategy for the research question can be found in Table 1.

2.4. Screening

All articles were screened using the PRISMA three-phase screening process, where the first stage of the process seeks to identify and remove duplicate articles, the second stage screens titles and abstracts, and the last stage involves a full text screening (Moher et al., 2009). First, duplicate articles were identified using Endnote, resulting in 103 articles being removed. Then titles and abstracts of articles were screened by reviewers [AL, TL] to determine eligibility against the inclusion/exclusion criteria for full text screening. In cases where eligibility status remained unclear from the title and abstract, a thorough examination of

Table 1
Search strategy.

Search	Search terms
#1	invisible OR marginalised OR vulnerable OR underrepresented OR underheard OR underserve* OR "low SES" OR disabilit* OR "special need*" OR disengage* OR LGBT OR "trans* OR gender divers*" OR intersex OR gay OR lesbian OR pansex* OR bisex* OR transient OR "sick child" OR "eating disorder" OR "residential care" OR "First Nations" OR Indigenous OR Aborig* OR "Torres Strait Island*" OR "geographic mobility" OR "home school*" OR CALD OR "cultural and linguistic diversity" OR "unexpected enrolment*"
#2	child* OR teenager OR adolescen* OR youth OR "Young person" OR "Young people" OR "student*")
#3	school* OR "primary school*" OR "secondary school*" OR "high school*" OR "early childhood" OR "kindergarten" OR "childcare" OR "school transitions" OR "early years" OR college* OR TAFE* OR "vocational education and training" OR "vocational education" OR VET OR "higher education" OR universit* OR "special school*" OR "special assistance school*"
#4	rural OR regional OR remote OR outback OR country OR community
#5	(Australia* OR Queensland OR Victoria OR "New South Wales" OR Tasmania OR "Northern Territor*" OR "Western Australia" OR "Australian Capital Territory" OR "South Australia"
#6	belong*

the full text was conducted. Additionally, if any uncertainties arose regarding eligibility criteria, reviewers [AL, TL] discussed these until a consensus was reached. These full texts were independently reviewed by [AL, TL], and all other reviewers confirmed eligibility for inclusion of the final 14 articles in the review, including the reason for the 157 articles which were deemed not to meet the inclusion criteria (see Fig. 1).

2.5. Study quality

The quality of the 14 studies was assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Tools (2020). This tool provides a comprehensive evaluation of the methodological quality and reliability of SLRs (Joanna Briggs Institute, 2020), allowing for an explicit consideration of the risk of bias in the included studies, while also permitting for all eligible and relevant studies to be included in the final review and synthesis. To ensure the process was rigorous, the quality appraisal was undertaken by all seven reviewers in a blind review, where any discrepancies were discussed, reviewed and agreed upon by all authors. The agreed quality appraisal review scores are outlined in the results section (see Table 2).

2.6. Strategy for data synthesis

The findings from the articles were synthesised using a matrix tool to code and categorise themes, relationships, and key discoveries related to marginalised and disenfranchised children and young people's perceptions of belonging within RRR educational contexts in Australia. Due to heterogeneity of included studies, a meta-analysis was not feasible, and findings of included studies are reported as a qualitative thematic synthesis, consistent with the PRISMA preferred reporting criteria (Shamseer et al., 2015). More specifically, we pursued an inductive synthesis with the help of Braun and Clarke's thematic analysis framework (2006; 2019). This approach was drawn upon in "generating" and "defining" themes (Braun and Clarke, 2019, p. 593) resulting in six themes. Braun and.

Clarke (2019) encourage scholars to make use of their revised six-step guide[1] when engaging in thematic analysis, which was "applied

[1] This six-phased guide of thematic analysis consists of (1) familiarizing yourself with your data; (2) generating initial codes; (3) generating (initial) themes; (4) reviewing themes; (5) defining and naming themes; and (6) producing the report (Braun and Clarke, 2019, 593).

Table 2
Characteristics of reviewed studies (n = 14).

Author, year and Quality rating (QR)	Participants	Measurement tools	Key findings
Cross-sectional studies (n=4)			
Braun and Clarke (2006) QR = 8/8	N = 132 including participants with an intellectual disability (n = 61) and those without (n = 71)	• Neighbourhood Youth Inventory (NYI) • Quality of Student Life Questionnaire (QSLQ) • Neighbourhood Facilities Questionnaire (NFQ)	• The hypothesised relationship between feelings of life satisfaction and sense of community was partly confirmed among adolescents with an intellectual disability. That is, their ratings on a quality-of-life measure and a community belonging measure were moderately correlated suggesting that having activities, friends, and support was associated with higher life satisfaction. • Self-reported quality of life domains of belonging and empowerment were found to be significantly lower for adolescents with an intellectual disability when compared to their nondisabled peers. • Adolescents without an intellectual disability rated themselves higher than their disabled peers in the use of some shopping, eating, and recreation facilities. • The adolescents with an intellectual disability reported playing video games and watching videos more and visited such places as shopping centres, shops, coffee shops/cafes, movies, sports ovals, and friends less frequently. • Urban/rural differences across the sample were minimal. That is, urban and rural participants were

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Table 2 (*continued*)

Author, year and Quality rating (QR)	Participants	Measurement tools	Key findings
			equally satisfied with life.
Dunstan et al. (2017) QR = 8/8	N = 481 Indigenous children	• *Dependent variable*: **Affective engagement.** Children's affective engagement was measured using six self-report items • *Independent variables* include a range of socio-structural variables across the community, school, family and individual levels. • A set of key *control variables*: household occupancy, child age and child gender	• The school- and individual-level factors play most significant role in shaping affective engagement. • Distinct differences were found in the way both subjective and relational and socio-structural factors influence Indigenous affective engagement compared with behavioural engagement. • The reduced and contrasting role played by socio-structural factors was found to shape Indigenous children's affective engagement compared with behavioural engagement. • Living in area of moderate or high/extreme level of remoteness had a positive influence on affective engagement.
McLaren et al. (2015) QR = 5/8	N = 82 secondary school adolescents aged from 14 to 18 years, identified as gay (n = 33), lesbian (n = 30), or bisexual (n = 19)	• Centre for Epidemiologic Studies–Depression Scale (CES-D) – a 20-item tool, assessing several response domains commonly associated with depression, such as affect and somatic complaints. • Social Questionnaire for Secondary Students – a 13-item questionnaire, assessing peer, school, and teacher connectedness; and • Psychological Subscale of the Sense of Belonging – an 18-item instrument, assessing sense of belonging to the GLB youth group.	• Higher levels of sense of belonging to a community GLB youth group were associated with higher levels of school, teacher, and peer connectedness, and, in turn, higher levels of peer connectedness were associated with lower levels of depressive symptoms. • It was expected that lower levels of peer, school, and teacher connectedness would each be associated with higher levels of depressive symptoms. Only lower levels of peer connectedness predicted higher levels of depressive symptoms.
Whelan et al. (2021) QR = 8/8	N = 51 secondary students with ASD and their parents	Students completed the youth self-report measure and parents completed the parent report measure pre- and post-transition. • KIDSCREEN-27 – a 27-item, assessing quality of life. • Strengths and Difficulties Questionnaire (SDQ) – a 25-item tool, assessing mental health. • Psychological Sense of School Membership (PSSM) scale – an 18-item self-report questionnaire, measuring school belonging; and • National Assessment Program—Literacy and Numeracy (NAPLAN) test results measuring academic achievement.	• Higher Autism Spectrum (AS) traits were associated with lower quality of life (QOL), school belonging and poorer mental health. • AS traits were highly associated with lower QOL, school belonging and mental health when measured in the final year of primary school, however QOL and school belonging were no longer significantly associated with AS traits at secondary school. • The association between higher AS traits and improvement in QOL and mental health after the school transition for students in this study runs counter to the prevailing view in the literature that students with disabilities, and in particular students with ASD, experience difficult transitions. • Academic progress of the whole student sample across the school transition, with no evidence of the decline commonly reported in the wider (non-ASD) school transition literature. • Students with higher AS traits reported improved QOL and mental health after the transition.
Qualitative studies (n=10)			
Bell-Booth et al. (2014) QR = 10/10	N = 2 Indigenous boys characterised as being socially disadvantaged	• Four-year longitudinal study • Narratives (Boys, Parents, Peers, School Staff) • Settling into School Scale (SIS) of the Teacher Rating Scale of School	• Individual and family characteristics (like temperaments and familial background influenced transitional

(*continued on next page*)

Table 2 (*continued*)

Author, year and Quality rating (QR)	Participants	Measurement tools	Key findings
		Adjustment (TRSSA) • Behaviour Adjustment: Strengths and Difficulties Questionnaire (SDQ) • Academic and language attainment (teacher rating) • Social inclusion socio-metrics and peer accounts.	trajectories. Both experienced social instabilities. • Role of School and Community for Engagement: the relationship with the school plays a crucial role in engaging the boys in education. The CFC program provided functional support and bridged home-school connections. Although the school may not have been prepared to cater for students from disadvantaged backgrounds. • School staff changes can influence the influence of interventions, indicating relations are imperative. The school can represent a stable influence. • Parental connections are influenced by differing perspectives on education and the way communication occurs or is received. This can contribute to low parental involvement.
Carter et al. (2018) QR = 6/10	N = 3 focus groups: Indigenous undergraduate students; 2 indigenous HDR student interviews; 6 university staff interviews	Thematic analysis of transcribed focus groups and interviews	• The centrality of teaching and teacher-student relationships: emphasis on the pivotal role of teaching and relational learning in student engagement, this study underscores the importance of fostering quality relationships between academic staff and Indigenous students for effective learning outcomes. • Challenges in institutional support and workload:

Table 2 (*continued*)

Author, year and Quality rating (QR)	Participants	Measurement tools	Key findings
			Highlighting the disparity between institutional commitments to Indigenous education and the actual support provided to academic staff, particularly in terms of professional development opportunities, workload recognition, and resourcing. • Need for sustained commitment and resourcing: Emphasising the necessity for universities to prioritize sustained commitment and adequate resourcing from senior management to address the challenges facing Indigenous students, including improving retention and completion rates. • Importance of relational aspects in university spaces: concept of humans attaching value and meaning to locales, the study underscores the significance of social transactions and emotional reinforcement in fostering a sense of belonging for Indigenous students within the university environment. • Role of academics in shaping university spaces: academics play a crucial role in creating welcoming and supportive university environments through their pedagogical practices and mentoring, the study advocates

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Table 2 (*continued*)

Author, year and Quality rating (QR)	Participants	Measurement tools	Key findings
			for recognising and valuing this aspect of their work within institutional frameworks.
Crawford and McKenzie (2023) QR = 9/10	N = 19 low SES, regional and remote university students	Thematic analysis of transcribed semi-structured interviews.	A sense of belonging can be created by: • Nurturing a sense of belonging in local communities: Emphasising the importance of fostering belonging within local spaces and among local residents to overcome geographical, cultural, and financial challenges faced by students in rural and regional areas. • Leveraging local resources: Highlighting the value of utilizing existing physical spaces, such as libraries and schools, along with local support networks to provide academic and emotional support to students. • Establishing a coordinated network: Advocating for the creation of a coordinated network of study spaces, including satellite campuses and regional study hubs, to facilitate connectivity and support for online students living in rural and regional communities.
Iyer (2018) QR = 10/10	N = 34 Culturally and Linguistically Diverse university students (CALD)	• Pre and post surveys, focus groups or individual data • Coding and categorising of data using Inquiry and Analysis framework	• The journey of belonging was far from smooth or neutral, but rather riddled with dilemmas and challenges. Academic requirements, including formal writing skills, theoretical understanding, and abstract thinking, as well as the expectation of homogeneous groupings, greatly influenced students' sense of belonging. • Students desired acknowledgment of their diversity and individuality, yet often felt overlooked. Interaction barriers imposed by online learning platforms made them feel silenced. • The power dynamics between academics and students were reinforced by perceived expectations, such as the assumption that students would fully comprehend online content without additional support, and that they would prefer learning in groups with other culturally and linguistically diverse (CALD) students • Elements of learning engagement that shaped operational norms affected students' sense of belonging. Students perceived a lack of autonomy in learning conditions, often needing to adapt or overlook them. However, when encouraged to share ideas and perspectives, they felt welcomed.
Mander et al. (2015) QR = 10/10	N = 32 Male Indigenous Secondary School Students	Thematic Analysis of Narratives	Motivation for Boarding School Attendance: • Students valued being part of the decision-making process to attend boarding school. • Some felt they had little choice due to perceived inadequacies in

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Table 2 (*continued*)

Author, year and Quality rating (QR)	Participants	Measurement tools	Key findings
			their local school's resources and facilities. • Social issues like drugs at local schools made boarding school seem like a less daunting option. Challenges of Transition and Adaptation: • Students faced challenges in various aspects of their lives, including organization, social dynamics, academics, culture, and interpersonal relationships. • Adjusting to new ways of doing things, including food options, contributed to a sense of "culture shock." Identity and Belonging: • Some students felt pressure to relinquish their cultural identity to fit into boarding school life, leading to tension between who they were and who they felt they had to be. • They experienced the need to "code switch" between different cultural contexts. • Some found it challenging to maintain their traditional activities while at boarding school, impacting their sense of belonging. Academic and Social Support: • Some students felt teachers did not adequately address differences in learning readiness or cultural needs. • Other Indigenous students actively worked to welcome and connect new students, but the

Table 2 (*continued*)

Author, year and Quality rating (QR)	Participants	Measurement tools	Key findings
			move to boarding school sometimes strained relationships with friends back home
Moffatt and Riddle (2021) QR = 10/10	N = 3 × 22–26yrs who had attended flexi-schooling.	Thematic Analysis of Narrative Inquiry transcriptions applying a Social justice framework	• Enjoyed and flourished in the small school setting. • Could still access a range of school subjects via Distance Education. • Felt a sense of belonging through school-based activities within the community. • Rural Flexi-school provided a safe space from bullying experienced in the mainstream setting.
Power et al. (2022) QR = 10/10	N = 42 rural, regional and remote students (38 female, 4 male)	Thematic analysis of transcribed semi structured interviews	• Balancing Responsibilities: Non-traditional students juggle parenting, caregiving, and employment alongside their studies, which limits their time for academic engagement. • Social and Emotional Isolation: The nature of studying remotely or part-time can lead to feelings of isolation and disconnection from peers and the academic community. • Financial Barriers: Travelling to campus for classes or residential sessions poses financial challenges due to expenses and time constraints, affecting both the students and their families. • Peer Connection and Social Support: Peer connections, facilitated through platforms like

(*continued on next page*)

Table 2 (*continued*)

Author, year and Quality rating (QR)	Participants	Measurement tools	Key findings
			Facebook, play a crucial role in combating isolation and fostering a sense of belonging. • Infrastructure and Resource Limitations: Lack of reliable internet access, essential infrastructure, and costly textbooks hinder students' ability to fully engage in their studies and access necessary resources. • Limited Access to Academic Resources: Work responsibilities may prevent students from accessing local libraries, which often lack the necessary resources, further impeding their academic progress.
Robinson et al. (2020) QR = 10/10	N = 30 (12–25yrs) characterised as having a disability	Thematic analysis of transcribed interviews using NVivo	• Community recognition, acknowledgment and appreciation within the community are essential for fostering a sense of belonging among rural residents. • Extended family, particularly grandparents, and social connections with various community members contribute significantly to feelings of belonging. • The presence of safety and security within rural settings forms a fundamental aspect of belonging. • Familiarity with the environment and the presence of family members play crucial roles in nurturing belonging in rural communities.

Table 2 (*continued*)

Author, year and Quality rating (QR)	Participants	Measurement tools	Key findings
			• Engagement in communal activities like sports and music, along with social connections with teachers and support workers, reinforces feelings of belonging. • Rural life is valued for its association with freedom and independence, contributing positively to belonging. • Challenges of Rural Living: Despite its virtues, rural living presents challenges such as limited entertainment options and inadequate public transportation, impacting feelings of belonging and social connectivity.
Schweitzer et al. (2021) QR = 10/10	N = 31 migrant and refugee children (11–18yrs), their parents (mainly mothers)	Thematic Analysis of Digital Story Telling transcriptions	• School activities celebrating cultural, and languages helped students appreciate their heritage and understand the values, beliefs, and practices of the dominant culture. The environment showcased diverse cultures through artworks and multilingual written signs. • Building socially supportive relationships • Student perception of feeling cared for within the school context and the extent of their level of attachment and involvement in their school
Whettingsteel et al. (2020) R = 10/10	N = 52 boarding school students. 27 X rural and remote students	Thematic analysis of Yarning transcriptions and drawings	• Place Identity: Participants highlighted the boarding school's identity as a barrier to belonging due to architectural

(*continued on next page*)

Table 2 (*continued*)

Author, year and Quality rating (QR)	Participants	Measurement tools	Key findings
			factors and intangible qualities. These factors include unfamiliarity during transition, lack of cultural inclusion, and institutional associations. Suggestions included incorporating Aboriginal culture, improving symbolic representation, and easing surveillance for enhanced sense of belonging. • Interior Relationships: explores social dynamics within boarding schools. Participants stressed the importance of creating a sense of community and belonging, suggesting improvements such as enhancing social maps and communal spaces. They advocated for flexible sleeping arrangements, circular designs, and varied housing options to accommodate diverse needs and foster inclusive environments • Spatial Voice: explores how interior architecture in boarding schools can enhance students' sense of belonging by giving them individual agency within the space. It covers activities to foster belonging, the need for flexible room arrangements, self-expression through decoration, the impact of temperature and lighting, and the importance of leaving a legacy. • Third Space: explores the concept of a dedicated interior space for Aboriginal and Torres Strait Islander students within boarding schools. Participants discuss the importance of ownership and switching off from the pressures of mainstream schooling, but opinions vary on whether isolation or integration is the best approach

flexibly" to capture the "uniting idea" for each theme (Braun and Clarke, 2019). This was discussed and agreed by all authors.

2.7. Results

The initial search of the databases resulted in a total of 5057 articles. After removal of 103 duplicates, 4954 articles remained. Titles and abstracts of remaining articles were reviewed against the predetermined inclusion/exclusion criteria, resulting in 171 articles being eligible for full-text review. Of these, 154 articles were removed with reasons noted (*see* Fig. 1), leaving 14 articles included for the review. The search results and subsequent exclusion/inclusion stages are reported in Fig. 1.

2.8. Study quality

Of the 14 studies reviewed, 12 studies were of high quality, and two studies were scored modestly (Carter et al., 2018; McLaren et al., 2015). All studies were included regardless of quality appraisal review scoring. See further details about quality ratings for included studies in Table 2.

3. Findings

Table 2 provides an overview of the 14 studies including type of study, quality appraisal rating, participant numbers and demographics, and key finding pertaining to invisible children's and young people's perceived challenges concerning belonging within RRR educational contexts in Australia. Our thematic analysis revealed six interconnected factors that influence belonging, which we organise from immediate interpersonal dynamics to broader systemic influences, reflecting the nested nature of ecological systems. These themes demonstrate how belonging emerges through complex interactions between individual relationships, institutional practices, community contexts, and structural factors. While presented separately for analytical clarity, these factors operate simultaneously and interdependently in students' lived experiences of belonging within RRR educational contexts.

Studies were published between 2011 and 2023 and included four cross-sectional studies, and 10 qualitative studies. Studies were conducted across four Australian states: one in Western Australia, two in Victoria, two in Queensland and one in Tasmania. Additionally, eight studies had a national focus, or covered multiple unspecified states/territories. Key findings were further described via thematic analysis in

relation to the research question. Fourteen studies reflected the voices and perceptions of children and young people in relation to factors contributing to or hindering their sense of belonging in RRR educational settings in Australia. The final synthesis comprised six themes exploring factors informing belonging: 1) Relational factors; 2) Fostering supportive relationships, sense of community and school connectedness factors; 3) Recognition of diversity and individuality factors; 4) Factors of adaptation and fitting in; 5) Role of school and community for engagement factors; and 6) Spatial design and architectural factors. In addition to the thematic analysis of children's and young people's perceptions, an examination of the voices represented within the current literature was undertaken, to illuminate the underrepresented or 'invisible' voices within this research landscape.

3.1. Representation of marginalised and disenfranchised children and young People's voices

A review of the represented voices within the literature revealed significant disparities in representation across and within various marginalised and disenfranchised groups. Aboriginal and Torres Strait Islander youth were represented within several studies (Mander et al., 2015; Whettingsteel et al., 2020; Bell-Booth et al., 014; Dunstan et al., 2017; Carter et al., 2018), as were students from RRR settings (Crawford and McKenzie, 2023; Power et al., 2022; Robinson et al., 2020), including students with disabilities (Robinson et al., 2020; Whelan et al., 2021; Braun and Clarke, 2006; McLaren et al., 2015). However, other groups had limited representation. For example, culturally and linguistically diverse (CALD) students, were the focus of two studies (Iyer, 2018; Schweitzer et al., 2021), while students from low socio-economic backgrounds were explicitly addressed in one study (Crawford and McKenzie, 2023), and LGTBQ + youth were represented in one study (McLaren et al., 2015).

3.2. Relational factors

Relational factors were evident throughout the findings of seven of the reviewed studies (Bell-Booth et al., 2014; Carter et al., 2018; Dunstan et al., 2017; Moffatt and Riddle, 2021; Robinson et al., 2020; Schweitzer et al., 2021; Whettingsteel et al., 2020). These comprise support, networks and relationships at different levels, including community, institutional, and family, which highlights the need for and importance of cultural appreciation and celebration within these contexts.

At the community level, acknowledgment and appreciation within the community and social connections with various community members are essential for fostering a sense of belonging among rural residents (Robinson et al., 2020). One young person with a disability in Robinson et al.'s (2020) study articulated this connection clearly: "Everyone knows me here … when I go to the shop they all say hello. It makes me feel like I belong" (p59).

At the institutional (i.e., school, university) level, relationships with teachers and peers, and qualities of those relationships contribute significantly to young people's sense of belonging (Carter et al., 2018; Dunstan et al., 2017; Schweitzer et al., 2021), with schools representing stable influence (Bell-Booth et al., 2014). An Indigenous university student in Carter et al.'s (2018) study described the impact of positive institutional relationships: "Having Indigenous staff who understand what we're going through makes all the difference. They get it-they know where we're coming from' (p. 250).

Finally, family with parental support for their children's schooling/education, and extended family, particularly grandparents, were reported to contribute significantly to feelings of being and belonging (Robinson et al., 2020). As one student reflected: "My nan comes to all my school things. When she's there I feel more confident" (Robinson et al., 2020, p. 60).

Relational aspects were also found to be associated with place (i.e., school or university as physical surrounds), that is, the relational accommodation within spaces, places or location influences sense of being and belonging. For example, the Indigenous students in Whettingsteel et al. (2020) study highlighted the boarding school's identity as a barrier to belonging due to factors relating to unfamiliarity during transition, lack of cultural inclusion, and institutional associations. One student expressed this disconnect: "It felt like I had to leave who I was at the gate … like I couldn't be myself and be at this school at the same time" (Whettingsteel, 2020, p.94).

Similarly, Carter et al. (2018) underscored the significance of social transactions and emotional reinforcement in fostering a sense of belonging for Indigenous students within the university environment, emphasising the importance of relational aspects in university spaces. Also, when relational, size of setting is a factor as found in Moffatt and Riddle (2021) where a rural flexi-school provided a safe space from bullying experienced in the mainstream setting. One student in this study explained: "In my old school I was just a number … here the teachers know me, the class is smaller, I can actually talk to people" (Moffatt and Riddle, 2021, p.1468).

3.3. Fostering supportive relationships, sense of community and school connectedness factors

Seven studies reported on the importance of supportive relationships and community/school connectedness for students in and from RRR communities (Braun and Clarke, 2006; Carter et al., 2018; Mander et al., 2015; McLaren et al., 2015; Robinson et al., 2020; Schweitzer et al., 2021; Whettingsteel et al., 2020). Among these studies, only two explicitly reported on the benefits of connectedness to measurable mental health outcomes and perceived quality of life for specific rural populations such as gay, lesbian, and bisexual youths and those with a disability (Braun and Clarke, 2006; McLaren et al., 2015).

One LGTBTQ + youth in McLaren et al.'s (2015) study articulated the mental health impact of school connection: "Before I found the [GLB] group, I was really depressed … having a place where I'm accepted at school literally saved my life" (p. 1696). This powerful statement underscores the critical importance of fostering supportive connections for marginalised youth.

Four studies pointed to the positive impacts of perceived community and school connectedness for students within RRR communities, inclusive of Indigenous youth (Carter et al., 2018) and university students (Carter et al., 2018), youth with disability (Robinson et al., 2020), and migrant and refugee children (Schweitzer et al., 2021). Two studies identified how the learning of First Nations' students in boarding schools are supported through feeling culturally connected and accepted in the new school setting while maintaining connections with their rural community (Mander et al., 2015; Whettingsteel et al., 2020). As one Indigenous boarding school student expressed: "It helps when they bring Elders in to talk to us … it makes you feel like your culture is important here too" (Whettingsteel, 2020, p.96).

In these studies, family, extended family and social support (Robinson et al., 2020), the availability of community activities and social networks (Braun and Clarke, 2006; Carter et al., 2018; Robinson et al., 2020; Schweitzer et al., 2021) and community recognition and acceptance (Mander et al., 2015; Robinson et al., 2020; Whettingsteel et al., 2020) were identified as enabling a sense of community and school connectedness. Most studies highlighted the centrality of teacher-student relationships in supporting rural students to feel connected (Carter et al., 2018; Mander et al., 2015; McLaren et al., 2015; Robinson et al., 2020), foregrounding educational institutions such as universities and schools as instrumental to nurturing a sense of community for diverse rural youth groups.

3.4. Recognition of diversity and individuality factors

Four studies explored the topic of how recognition of diversity and

individuality inform belonging (Iyer, 2018; Mander et al., 2015; Power et al., 2022; Schweitzer et al., 2021). More specifically, Iyer (2018) found that CALD students enrolled in a Master program desired acknowledgment of their diversity and individuality yet often felt overlooked. They found interaction barriers imposed by online learning platforms translated into students frequently feeling silenced, loss of identity, translating into lack of belonging. One CALD student in Iyer's (2018) study shared: 'In the online classroom, no one can see me or hear my accent … I feel invisible. My contributions are ignored because they don't fit the Australian way of thinking" (p. 247).

Similarly, Mander et al. (2015) reported how Indigenous students attending boarding school in Western Australia found it challenging to maintain their cultural activities while attending school, including feeling a pressure to relinquish their cultural identity to fit into boarding school life, leading to tensions between who they are and who they felt they had to be; in turn negatively affecting their sense of belonging. One student articulated this cultural tension: "I'm Nyoongar and we learn about the Nyoongar culture as well, so if I'm down there [at home] I go camping and stuff, which is sort of like how the traditional people used to live, and hunting and stuff, and so I missed out on a lot of that" (Mander et al., 2015, p.32).

In addition to the above, Power et al. (2022) reported how travelling to campus for classes or residential sessions posed financial challenges for university students from low-socioeconomic backgrounds affecting their sense of belonging negatively. A student in their study explained: "It costs me nearly $100 in fuel to drive to campus … I can't afford to come in for optional activities, so I miss out on making connections with other students" (Power et al., 2022, p.2332).

Parallel to this, Schweitzer et al. (2021) found how school activities authentically celebrating diverse cultures and languages contributed to CALD refugee and migrant students to not only appreciate their own culture and heritage but also understand the values, beliefs, and practices of the Australian environment, in turn positively informing their sense of belonging. As one student reflected: "When we had the multicultural day and I could share my food and traditional clothes, I felt like people understood me better. It made me feel like I belonged here too, not just in my home country" (Schweitzer et al., 2021, p. 601).

3.5. Factors of adaptation and fitting in

Three studies reported on matters concerning adaption and fitting in (Braun and Clarke, 2006; Mander et al., 2015; Whettingsteel et al., 2020), with two studies acknowledging the transition from primary to secondary school as a challenging period, but particularly for Indigenous children required to relocate from their rural and remote community to attend school in metropolitan settings (Mander et al., 2015; Whettingsteel et al., 2020). More specifically, Mander et al. (2015) highlighted the experience of adaptation and fitting in where participants reported challenges in various aspects of their lives, including organization, social dynamics, academics, culture, and interpersonal relationships. One Indigenous student described this difficult transition: "The culture shock was the hardest part for me … back home everybody is so close and related and then when you come to boarding school, you're on your own" (Mander et al., 2015, p. 30).

In addition, in their study Mander et al. (2015) found that participants had limited input into the decision-making process of attending boarding school with little choice of subjects and resources impacting their relationships and sense of belonging at the school. A student expressed their frustration with this lack of agency: "I didn't choose to come here. My parents and the school decided. No one asked me what subjects I wanted to do" (Mander et al., 2015, p. 31).

In a similar vein, Braun and Clarke (2006) found the relationship between feelings of life satisfaction and sense of community was partly confirmed among adolescents with an intellectual disability. Specifically, participant ratings on a quality-of-life measure and a community belonging measure were moderately correlated, suggesting that having activities, friends, and support was associated with higher life satisfaction (Braun and Clarke, 2006). One young person with an intellectual disability shared: "I like it when I have things to do with my friends. It makes me happy … I don't feel different" (Braun and Clarke, 2006, p. 56).

3.6. Role of school and community for engagement factors

This theme was explored by five studies (Bell-Booth et al., 2014; Dunstan et al., 2017; Moffatt and Riddle, 2021; Robinson et al., 2020; Schweitzer et al., 2021). The reviewed studies showed connection between belonging and the role played by the school and community in supporting students. Three studies, Dunstan et al. (2017), Bell-Booth et al. (2014) and Schweitzer et al. (2021) found school factors, including support programs, significant in shaping student engagement. Differentiating between affective and behavioural engagement, identified school and individual factors which influenced engagement for Indigenous students was explored in Dunstan et al. (2017). An Indigenous student in their study explained: "When teachers take time to ask about my family and community, I feel like they actually care about me as a person, not just if i do my work" (Dunstan et al., 2017, p. 260).

Similarly, Moffatt and Riddle (2021) found the size of the setting and community to be a factor influencing engagement for school students who had attended flexi-schooling, with relatively small school and community settings having a positive influence on enjoyment and sense of flourishing when students participated in school-based activities within the community. A student in their study reflected: "In my old school I was just another kid in a big crowd. Here everyone knows each other … when we do community projects people recognise me and say hi. It makes me want to come to school" (Moffatt and Riddle, 2021, p. 1469).

Community activities were significant for students characterised as having a disability in one study (Robinson et al., 2020), where sports, music and other communal activities provided recognition and acceptance for students along with the social connections that reinforced belonging. As one young person with a disability shared: "I play cricket every Saturday with my team. They don't treat me different … when I go a wicket everyone cheered for me just like they do for everyone else" (Robinson et al., 2020, p.59).

3.7. Spatial design and architectural factors

Six studies explored the influence of spatial design and architectural factors on students' sense of belonging (Crawford and McKenzie, 2023; Iyer, 2018; Moffatt and Riddle, 2021; Power et al., 2022; Robinson et al., 2020; Whettingsteel et al., 2020). Two studies highlighted how the physical identity of educational spaces, particularly the incorporation of cultural elements and symbolic representation, significantly impacts students' sense of belonging (Whettingsteel, 2020; Crawford and McKenzie, 2023).

An Indigenous student in Whettingsteel et al. (2020) study powerfully articulated the importance of cultural representation in physical spaces: "If there was a space for [Aboriginal] culture it would give you a sense of feeling welcome … if we had a room for ourselves we could talk about culture and learn about it and showcase it to other people" (p. 96). Another student emphasised how dedicated spaces could support authentic self-expression: "It would give you a space to be yourself, because at boarding school you get judged, so it would be good to have a space to be you" (Whettingsteel, 2020, p.96).

Access to local resources, coordinated networks of study spaces, and reliable internet connectivity were found to play a crucial role in support student engagement and feeling of fitting in and belonging (Crawford and McKenzie, 2023; Power et al., 2022; Robinson et al., 2020). A rural university student in Crawford and McKenzie (2023) study highlighted connectivity challenges: "When my internet drops out during an online class, I miss important information … I feel like I'm falling behind and

don't belong in the course" (p. 1028).

Iyer (2018) and Power et al. (2022) highlighted that while online platforms are designed to mitigate geographical isolation, they can create barriers to isolation and lead to feelings of isolation if the facilitation is transactional. A CALD student in Iyer's (2018) study shared: "In online discussions, everything moves so fast. By the time I've thought about what to say in English, the conversation has moved on … it makes me feel like an outsider" (p. 248).

In contrast, Moffatt and Riddle (2021) identified that alternate physical education settings can provide safe spaces and foster belonging. A student in their study described this experience: "the classroom here doesn't feel like a normal classroom … it's more relaxed, we can move around, there are comfortable spaces. It makes me want to be here" (Moffatt and Riddle, 2021, p.1470).

When considering access to resources and financial constraints to accessing spaces, Power et al. (2022) highlighted the significant impact financial challenges place on young people in travelling or accessing resources that in turn negatively impact on their sense of belonging and social connectivity.

4. Discussion

4.1. Understanding belonging

Having conducted a systematic literature review of Australian empirical research on marginalised and disenfranchised children and young people's sense of belonging in RRR educational contexts for the past 15 years, we now turn to explore how students themselves conceptualise belonging. Our analysis reveals a rich tapestry of student-valued elements of belonging across six distinct themes, offering valuable insights that both complement and extend Bronfenbrenner's socio-ecological model.

This discussion elevates the authentic voices of students who have been traditionally silenced in educational discourse, revealing how they perceive, experience, and prioritize different aspects of belonging in RRR settings. By positioning students as experts of their own lived experiences, we gain unique insights impossible to acquire through theoretical frameworks alone. Significantly, our review not only captures represented perspectives but also exposes critical gaps – the "invisible" children and young people whose voices remain absent from existing

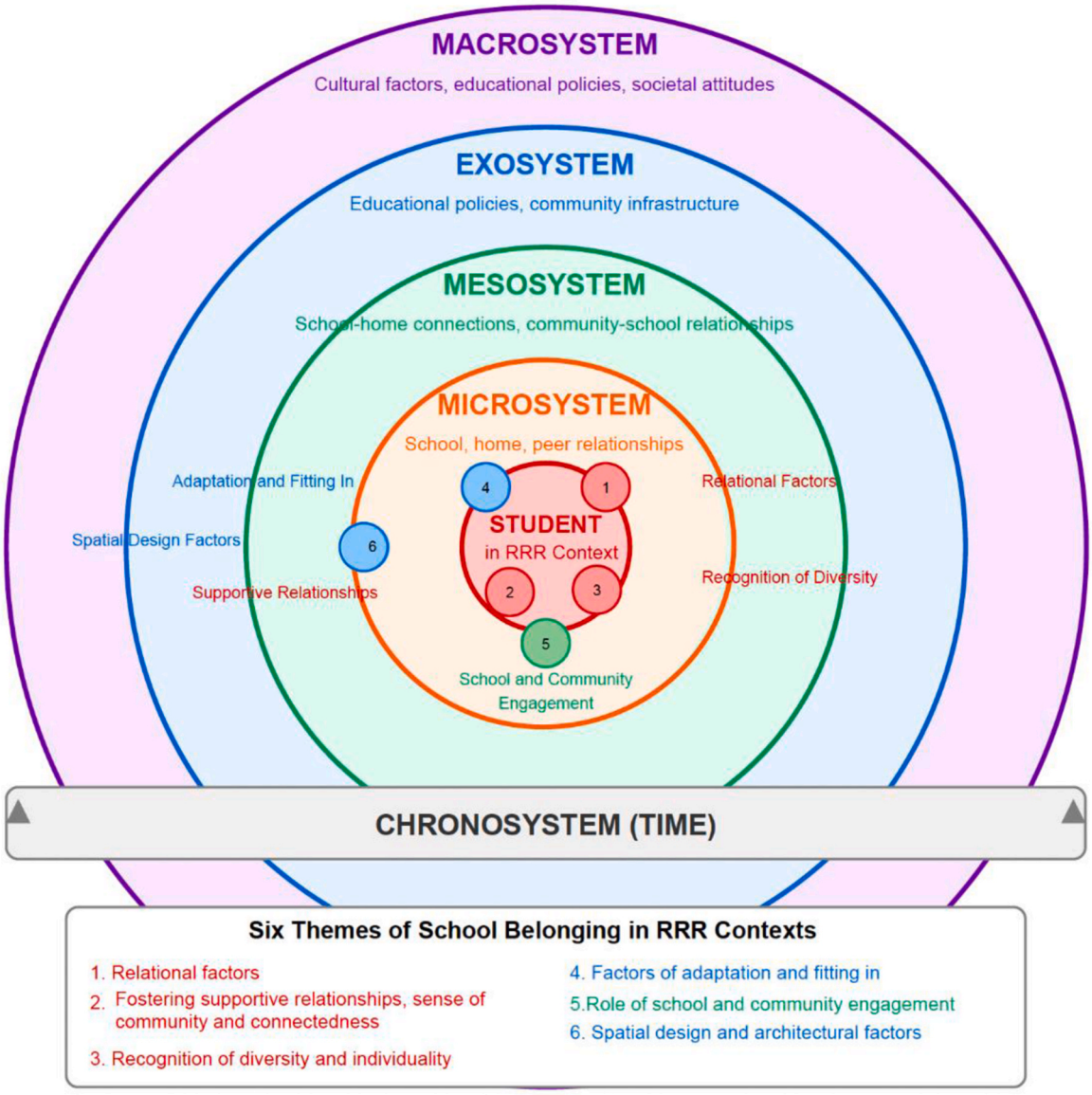

Fig. 2. What students value: Belonging in RRR Australian: Integrated with Bronfenbrenner's Bio-ecological model.

literature. These silences highlight the limitations of current Australian approaches to fostering belonging for marginalised students in RRR contexts.

Framing our findings within Bronfenbrenner's social-ecological model provides a powerful lens to understand how students' experiences of belonging emerge from complex interactions between individual characteristics and layered environmental systems (Fig. 2). Unlike traditional applications of this model, our approach, makes children and young people visible. It ensures that student voice is central to decisions being made about them and it revealed that belonging was how students actually experience it – not as researchers theorise it should be. This repositioning of student voice from peripheral to central creates a more authentic ecological understanding of belonging in RRR educational contexts.

4.2. Complex interactions: identity and setting effects

Our analysis reveals that belonging challenges in RRR contexts result from complex interactions between marginalised identities and rural settings rather than simple additive effects. This evidence demonstrates that geographic isolation does not merely compound existing identity-based marginalisation; instead, it fundamentally reshapes how marginalisation operates and how belonging is constructed. For example, the relational factor's theme illustrates how geographical isolation compounds identity-based marginalisation by limiting access to supportive networks and culturally affirming spaces, while simultaneously creating opportunities for different types of community connection. Indigenous students in boarding schools experienced duality, where distance from home culture created belonging challenges, yet smaller institutional settings sometimes fostered closer relationships with staff and peers Mander et al. (2015); Whettingsteel et al., 20200. Similarly, students with disabilities in rural communities faced reduced service access but often experienced stronger community recognition and acceptance than might occur in larger, more anonymous urban settings (Robinson et al., 2020). This suggests that RRR contexts create distinctive belonging dynamics that cannot be understood simply by examining marginalised identity or rural settings in isolation but require analysis of their dynamic interaction within specific ecological systems.

4.3. Microsystem

As posited within Bronfenbrenner's model, the individual is positioned within the microsystem, as it is within the immediate environment that the individual experiences those around them. This system also involves the space in which they are situated and how these spatial elements directly interact with the child/young person in their immediate environment to shape their day-to-day experiences of belonging. The physical environment significantly impacts students' sense of belonging with architectural elements and spatial design either facilitating or hindering feelings of inclusion and belonging (Whettingsteel, 2020). An example includes incorporating First Nations design into architectural spaces to enhance solidarity, group work, equity and a sense of belonging. As one student in Whettingsteel et al. (2020) study expressed: "It would give you a space to be yourself, because at boarding school you get judged, so it would be good to have a space to be you" (p. 96).

Some schools, for example, have built outdoor "yarning circles" or reconciliation gardens to show respect for their First Nations students and communities and for non-Indigenous students to experience the value of equalitarian and Indigenous perspectives (Mander et al., 2015). Environments that facilitate peer relationships, especially for LGBTQ + youth, and quality teacher-student relationships where connectedness with peers is integral to their sense of belonging and overall wellbeing (McLaren et al., 2015) are vital in shaping students' experiences of belonging within the educational context (Carter et al., 2018). The importance of these relationships is powerfully reflected in one LGBTQ + young person's words: "For the first time I felt like I could be me, like really be me, and people wouldn't judge me for it. I didn't have to hide parts of myself" (McLarenet al., 2015, p.1695).

Collectively, these elements illustrate the complex interplay of physical, social and relational factors within the immediate educational environment that significantly influence marginalised students' sense of belonging. From our research, we found that schools need to be committed to findings that support the student experience.

4.4. Mesosystem

The mesosystem focuses on interactions between different microsystems. The connection between home and school environments emerges as a critical factor for belonging, as evidenced by various school programs' role in bridging home-school connections (Bell-Booth et al., 2014). Community-school interactions are also significant, with the research emphasising the importance of leveraging local resources to create coordinated networks of study spaces (Crawford and McKenzie, 2023) for students in rural and regional communities. When the importance of relationships between leaders, teachers, students and families is acknowledged, connectedness can be enhanced. First Nations students highlighted the tension between maintaining connections to their home culture and adapting to the school environment (Mander et al., 2015). Robinson et al. (2020) also highlighted how extended family, particularly grandparents, and social connections with various community members contribute significantly to feelings of belonging for youth with disabilities in rural settings. As one young person with a disability expressed: "Everyone knows me … I play every Saturday with my team. They don't treat me different" (Robinson et al., 2020, p. 59). This sentiment reveals how community recognition fosters belonging through normalising rather than highlighting difference.

Additionally, recognition and acceptance, acknowledgment and appreciation within the community are crucial for fostering belonging. The review identified the mesosystem as playing a key role in fostering a sense of belonging, with schools needing to develop comprehensive strategies that extend beyond the school walls to involve active collaboration between schools, families and communities as a way of creating a cohesive support network for students. These strategies need to be based on a recognition of the cross-cultural Identities children and young people have and respect diverse cultural, familial and community backgrounds by creating spaces and programs that allow students to maintain connections to their home cultures while adapting to the school environment.

A refugee student in Schweitzer et al.'s (2021) study articulated this need for cultural recognition, "My culture is important to me. When there are special days at school where we can show our culture, I feel proud. When other students ask about my country, I like to tell them the good things" (p. 601). Together, this highlights that schools must make strong efforts to connect with the community in authentic ways and utilise available resources to create partnerships that will enhance support for children and young people. This is particularly crucial in rural and remote areas where resources may be limited.

4.5. Exosystem

The exosystem spans from the immediate environment (microsystem) to broader societal factors (macrosystem), with each system interacting to shape a student's experience. The circumstances in which children and young people grow up and then work influence several aspects of our lives. This may include any elements that enable inclusion societally, culturally and institutionally. Often, individuals face situations where they must adjust to new ways of doing things as well as challenges associated with our sense of belonging.

Students from rural communities pursuing higher education have expressed frustration with institutional systems that fail to account for their circumstances. As one student in Power et al.'s study stated: "The

uni doesn't understand what it's like for us—the distance, the cost the internet problems. They schedule things assuming everyone lives nearby or has perfect internet" (p. 2330). The digital divide presents particular challenges, as another student noted: "When my internet drops out during an online class, I miss important information" (Power et al., 2022, p.2331).

In this way, we need to develop ways to adapt and transition into these new situations. Beyond previously discussed microsystem and mesosystem factors, the exosystem includes indirect influences such as school policies (Iyer, 2018) and community infrastructure limitations impacting rural students' educational experiences (Power et al., 2022). Many of our studies showed that institutions such as universities and other educational contexts need to improve their ability to cater for difference and intentionally listen to students regarding their cultural identities, (Mander et al., 2015), societal attitudes including recognition of LGTBQ + youth (McLaren et al., 2015) and youth with disabilities (Robinson et al., 2020) in rural and remote settings.

4.6. Macrosystem

Within the macrosystem it is important to acknowledge, appreciate and then celebrate cultural diversity and the contexts in which we live. Some of our studies showed how certain school activities and events can contribute to students' acknowledgment and appreciation of their heritage (Mander et al., 2015; Robinson et al., 2020; Whelan et al., 2021) as well as understanding of dominant cultures in systems.

One CALD student reflected on how cultural celebrations enhanced belonging: "When we had the multicultural day and I could share my food and traditional clothes, I felt like people understood me better. It made me feel like I belonged here too, not just in my home country" (Schweitzer et al., 2021, p. 602). This highlights how cultural recognition at the macrosystem level directly impacts individual feeling of belonging.

For Indigenous boarding school students, the absence of cultural understanding at a macrosystem level created significant barriers to belonging. One student lamented: "It's hard to maintain your culture when you're away from home … there's no one here who understands what it means to be part of my mob" (Whettingsteel, 2020, p. 95).

It is important for teachers and students to discuss these issues and perhaps subvert dominance - that is, challenge and potentially overturn established power structures or prevailing cultural norms within education contexts. This approach aims to foster greater acceptance, social equity and a stronger sense of belonging. Schools have an obligation to value and understand the diverse views within their school student population. Similarly, communities have the ability to decrease the feeling of isolation and marginalisation of these students and, more importantly, influence longer term societal change (Bell-Booth et al. (2014).Both the community, and schools as part of that community, must also provide appropriate support networks, and resources for all students to address the rhetoric espoused in educational policies (UN, 2013) and translate these notions effectively into practice.

4.7. Chronosystem

Finally, within the chronosystem of Bronfenbrenner's model, certain changes occur over time. Fostering supportive communities takes time and requires intentional effort. For change to be sustainable, thoughtful and comprehensive consideration of how to implement meaningful change that considers the complex interactions within the school system and its broader environment is required.

Students with disabilities in rural communities have expressed how their sense of belonging evolved over time, as one participant in Robinson et al., 's 92020) study reflected: "When I first came to school I was really scared … but now everyone knows me, and I have friends. It took time but now I feel like I fit in" (p. 58). This temporal dimension of belonging highlights the importance of sustained support through transitions.

Also, as change occurs on a daily basis with staff changes, and shifting relationships, stability can be challenged. But some of our studies (Bell-Booth et al., 2014; Whelan et al., 2021) approached time as a critical factor in understanding and implementing sustainable changes in school environments. They recognised both the challenges and opportunities presented by ongoing daily changes, while demonstrating how schools can maintain stability and foster supportive communities. This is achieved through intentional, long-term efforts that consider the complex, evolving interactions within the entire educational ecosystem.

5. Conclusion

In conclusion, we have demonstrated how Bronfenbrenner's socio-ecological model when infused with authentic student perspectives, creates a distinct framework for understanding belonging that extends beyond traditional applications. The systematic review builds upon El Zaatari and Maalouf's (2022) theoretical examination of belonging by centring the actual voices of marginalised students in RRR contexts. This approach reveals elements of belonging that complement theoretical perspectives while adding crucial dimensions only discernible through student testimony. While El Zaatari and Maalouf (2022) effectively identify school climate factors that influence belonging generally, this study deepens this understanding by illuminating what students themselves value most—providing essential insights that enrich how we conceptualise and foster belonging.

Student voices across marginalised groups reveal consistent themes about belonging: the importance of cultural recognition, the need for physical spaces that affirm identity, the challenge of navigating between home and school cultures, and the critical role of relationships with peers and educators.

The diverse student voices from marginalised groups in this study both validate and extend our current understandings of belonging in educational contexts. While they confirm the fundamental importance of teacher-student relationships established in prior research (Allen et al., 2021, 2021; Uslu and Gizir, 2017), they reveal how these relationships in rural, regional and remote (RRR) settings are distinctively mediated through cultural recognition. The study builds upon Whettingsteel et al. (2020) findings with Indigenous participants by elaborating how physical spaces that affirm identity take on heightened significance in RRR environments where such affirmation may be less common. It further develops Mander et al.'s (2015) insights into the navigation between home and school cultures, demonstrating that this negotiation becomes particularly complex and consequential in RRR contexts where cultural differences may be more pronounced. Additionally, Crawford and McKenzie (2023) observations on connectivity challenges are deepened by this study's illustration of how geographical isolation fundamentally reconfigures relationship dynamics in ways that traditional belonging frameworks may not fully capture. Collectively, these findings suggest that belonging in RRR settings represents not simply a contextual variation of urban-centric models, but rather a qualitatively distinct phenomenon requiring its own theoretical framing.

By systematically identifying, mapping and applying these student-valued elements using an ecological lens—from the immediate learning environment to broader societal influences—this study's framework enhances educational approaches to belonging. It complements Allen et al. (2021) application of Bronfenbrenner's framework while offering greater contextual specificity for RRR settings and marginalised populations. This more nuanced understanding enables practitioners to identify gaps, leverage strengths, and implement targeted co-constructed strategies addressing the multifaceted nature of belonging within each unique community.

Adopting this student-centred ecological framework enriches how educational systems approach belonging in RRR contexts, moving beyond generic interventions to create spaces where students can, in the

words of a young person in McLaren et al.'s (2015) student, truly 'be me, like really be me" (p. 1695). This approach both validates established belonging theories and extends them through authentic student perspectives, providing a structured pathway for inclusive practices grounded in what students themselves – not just researcher or policy makers—identify as essential for belonging in their distinctive regional, rural or remote environments.

6. Limitations

The current review was limited due to several factors. The available literature in this area is notably limited, with findings lacking breadth concerning the experiences and perceptions of the range of marginalised and disenfranchised RRR children and young people in RRR educational settings in Australia. Among the groups represented in the data (e.g., students with disabilities, Indigenous students, LGBTQ + students, students with English as an additional language, migrant students), each group's voice was typically limited to one study, except for Indigenous students who were represented in four studies and students with disabilities who were represented in two studies. The small participant sizes (<60 participants in all studies except for one study that had 481 participants; Dunstan et al., 2017) across all studies also poses challenges for generalisations within each marginalised and disenfranchised student group. Restricting the inclusion criteria solely to published peer-reviewed literature may have limited the understanding of existing data, overlooking potentially relevant information, such as government and research informed reports, from other databases that were not searched. The heterogeneity of marginalised groups included in this review, while revealing valuable cross-cutting themes that inform understanding of belonging across different forms of marginalisation, may obscure group-specific nuances and distinctive experiences that warrant targeted investigation. Additionally, the intersectional experiences of students holding multiple marginalised identities could not be fully explored due to limited reporting of intersectional data within the included studies.

7. Future research directions

This review identifies several critical areas for future research to advance understanding of belonging in RRR educational contexts. First, longitudinal studies tracking belonging experiences across educational transitions are essential, particularly given the unique transition challenges faced by RRR students who may need to relocate for educational opportunities. Such studies would illuminate how belonging develops over time and identify critical intervention points.

Second, comparative studies examining belonging experiences between RRR and urban settings for specific marginalised groups would clarify the relative contributions of geographic isolation versus identity-based marginalisation. These studies could inform targeted interventions that address context-specific belonging challenges while building on universal belonging factors.

Third, participatory research methods that centre student voice in research design, data collection, and interpretation are crucial for authentic understanding of belonging from student perspectives. Such approaches would ensure that research priorities align with student-identified needs and that intervention development reflects genuine student experiences rather than researcher assumptions.

Finally, given the limited representation of certain groups in current literature, targeted research with CALD students, LGTBTQ + youth, and students from low socioeconomic backgrounds in RRR contexts is needed to address significant knowledge gaps and ensure inclusive understanding of belonging across all marginalised populations.

CRediT authorship contribution statement

Tania Leach: Writing – original draft. **Leah Le:** Writing – original draft. **Georgina Barton:** Writing – original draft. **Nicole Delaney:** Writing – original draft. **Ellen Larsen:** Writing – original draft. **Yosheen Pillay:** Writing – original draft. **Annette Bromdal:** Writing – original draft.

Disclosure statement

The authors report there are no competing interests to declare.

Declaration of interests

There are no known conflict of interests related to this paper.

Data availability

The authors confirm that the data supporting the findings of this study are available within the article [and/or] its supplementary materials.

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