

Belonging During University

Dr Joseph Crawford, University of Tasmania

Introduction

Globally, and in Australia, students are experiencing a generally low sense of belonging to their university, and many people are feeling social disconnection during their studies. In the United Kingdom, a quarter of students felt lonely most of the time, and half felt lonely one or more times a week (Neves & Brown, 2022). The Australian picture is similar, with one in three Australians experiencing loneliness (Lim, 2023), with higher rates reported in rural and remote areas. This challenge is realised in the aims of the Australian Universities Accord, particularly for a rural and remote university learning and teaching focus, with acknowledgement in the interim report that universities “have an obligation to students to foster belonging”.

In the Australian university sector, the story is similar, with less than one in two students reporting a positive sense of belonging to their university, a score much lower than teaching quality and student support indicators in the same survey (Social Research Centre, 2022). Numerous studies also highlight that sense of belonging is not felt equally in tertiary settings, with ethnic minority students, first-in-family, and low-income students reporting a lower sense of belonging compared to prototypical students (Gopalan & Brady, 2019).

The aspiration for universities to foster a high sense of belonging is a material challenge to the Australian higher education sector, given the connection belonging has in fostering persistence (Ajjawi et al., 2019), retention (O’Keefe, 2013), inclusion (Taff & Clifton, 2022), wellbeing (Gruttner, 2019), and achievement (Pedler et al., 2022). The COVID-19 pandemic saw multiple challenges to student wellbeing and academic success during periods of emergency remote teaching, although students who had a higher sense of belonging pre-pandemic tended to have lower rates of depression and anxiety during the pandemic (Gopalan et al., 2022). Thus, belonging might serve as an important success factor for students, and additionally, a protective factor for future adversity.

This brief review critically evaluates what a sense of belonging is and begins to build a nomological network for the factors that foster belonging, and effects that a sense of belonging has on student outcomes. The aim of which is to be both theoretically informed and practically beneficial to scholars, educators, and policy makers alike. In the below review, there are several comments made surrounding what can be done to achieve a greater sense of belonging, although I offer a short **summary of key findings** here:

1. While some students will belong *to* a university, it may be more important to focus on the times when students belong *during* university – which may include community, work, family, and campus-as-anchor, rather than only campus.
2. Student sense of belonging appears most aligned to an interpersonal approach, when contrasted to place-based and identity-based models of belonging.
3. Sense of belonging may offer a proximal measure to persistence, inclusion, and retention, among others. Sense of belonging *during* university ought to be an outcome expected of higher education institutions alongside measures of success and

completion. An ambitious agenda for student belonging may comprise funding models to incentivise national live belonging analytics data modelling and prediction.

4. Effective sense of belonging and social connection during university may offer significant social mobility, as cross-class exposure is high in universities, but likelihood of bond formation remains low.
5. Student belonging can be fostered through competency and practice, embedding connection opportunity into campus and curriculum decision-making, and addressing disparate perceptions of belonging.
6. The current sense of belonging measure is not well equipped to effectively capture when students do, and do not, belong. Greater innovation and research are needed on more effective approaches to measurement.
7. There is a lack of Australian-wide innovation funding to better address the belonging-gap students experience.

Belonging

Globally, student sense of belonging is recognised as an essential outcome to be cultivated by universities and colleges alongside academic outcomes. Maslow's (1943) famous hierarchy of needs combines love and belonging to relate to friendship, family, intimacy, and the feeling of connectedness. There have been various attempts since to understand what belonging is and is not; with three key theoretical framings for belonging regularly discussed in the literature: place-based, identity-based, and interpersonal. These lenses go to the root of what belonging likely is, but they do not exempt discussion of belonging narratives conflated with retention, student motivation, self-regulated learning, engagement, persistence, or connection that are often discussed in scholarly literature (e.g., Gillen-O'Neel, 2021; Tinto, 2017).

Place-Based Belonging

Place-attachment, sense of place, and belonging-in-place literatures argue that many people feel that particular places hold more significant meaning to them, and foster feelings of a sense of belonging while in that place (Gillespie et al., 2022). Socioemotional bonds that are formed between people and place are discussed with frequency in indigenous people (Carter et al., 2018). That is, "for Aboriginal peoples, Country refers to all living things, including people, plants and animals. It embraces the seasons, stories, and spirituality, and is both belongingness and a way of being" (Kennedy et al., 2019, p. 148).

For university students, place could include campuses (whether classroom, library, informal space, café, lab, or similar), online learning environments (such as the learning management system, immersive learning classrooms, or Zoom or Teams spaces), or learning locations where students regularly congregate to complete shared tasks (a regular café, local library, park, or a particular student's house). Institutional university approaches tend to orient towards emphasis on campus and – to a lesser extent – online learning spaces; although students may experience a sense of belonging across diverse personal surroundings such as living space (Anh & Davis, 2020), neighbourhood, or community (e.g., in Chetty et al., 2022). These built environments may offer – based on design, proximity, and perceived purpose – additional benefit or act as an inhibitor (e.g., attempting to do group activities in tiered lecture theatres).

Identity-Based and Intrapersonal Belonging

Some literature posits that one pathway to experiencing a sense of belonging is through feelings of connection to ones' identity, elements of individual identity, or through interpersonal bonds formed through social location and affiliation; or as some refer, institutional habitus (Thomas, 2002). That is, it may provide easier relationship formation between people who share a strong identity marker, through the ability to more easily empathise with similar experiences, and build shared resilience. Such forms of belonging are often discussed in context of how underserved populations experience a sense of belonging, for example Black Americans (e.g., Allen et al., 2021; Sule & Brown, 2023) and sexual and/or gender diverse people (Vaccaro & Newman, 2017). Individuals may also experience a sense of belonging through life satisfaction, life attitudes, and personal interests (Ahn & Davis, 2020).

For scholars, this approach to university student sense of belonging can be challenging, as prototypical students likely experience a sense of belonging with greater ease on campus. This may be a combination of normalising behaviours that parents (who went to university) engage in or being from a particular school or culture with a higher prevalence of university attendance. Current university approaches may include strategies to diversify artefacts that may overrepresent prototypical students (e.g., marketing materials, or indigenised case studies in curriculum) and support students to organise with others that share similar characteristics (e.g., international student association, or queer society) or interests (e.g., a law society, environmental society, or beekeeping society).

Interpersonal Belonging

The *belonging hypothesis* (Baumeister & Leary, 1995) highlights that, for people to belong, they need a small number of high-quality relationships. These relationships are characterised by mutual respect and care, and consistency across temporal and spatial contexts. That is, for people to feel a sense of belonging, they need to have a few close friends and have regular communication with them. Social connections are a prevailing construct for how people experience a sense of belonging, with quality of friendships closely related to sense of belonging (Pittman & Richmond, 2008). For students, there have been material differences observed in how sense of belonging fosters online learning compared to on-campus delivery (Bikowski, 2007).

University students have multiple connection anchors that establish varied baseline levels of belonging prior to commencing in study; and these can advantage some student cohorts. Most students, prior to university, have existing high school friendships, workplace associations, and familial bonds (Tice et al., 2021). Although not all relationships are safe and healthy; particularly during times of heightened stress (Bradbury-Jones & Isham, 2020) like transition to university. For many universities, group work, on-campus community events, student clubs and societies, and shared networking events have been deployed as strategies to foster connections between students. This adds into more social spaces like dorms, sporting clubs on campus, and student apartments.

Sense of belonging could also be argued as a proximal measure for social connectedness – as a possible risk factor, and as a positive proxy for potential student success and future student mobility – and universities have a role in facilitating this, particularly in contexts where some students enter university having less social competency and capital than others. This

challenge becomes more evident when considering the large scale study conducted by Chetty et al. (2022), where economic connectedness – or degree to which low socioeconomic status people were connected high socioeconomic status people – indicated universities high exposure between diverse people but the chance of befriending remained low. That is, universities provide one of the most significant equalising spaces in theory, but remain underutilised for building social bonds between diverse students.

Belonging Around the Edges, and Opposites

There are also several concepts that are often conflated with belonging including inclusion, engagement, connection, and relatedness. The most commonly discussed in the higher education sector is student engagement. Bloom (1956), for example, argues sense of belonging is part of emotional engagement (alongside cognitive and behavioural engagement). Kahu and Nelson (2018) embed student sense of belonging into, what they call, the educational interface alongside self-efficacy, emotions, and wellbeing. The key difference with engagement and belonging is that engagement is the cognitive, emotional, and behavioural state(s) that students leverage towards achieving an academic outcome. Whereas, belonging is focused on the connections people form in, and around, a place or group of people that supports long-term willingness to engage in objectives of the group. Kift (2024) speaks to the important intersection between engagement and belonging. The literature has remained reasonably unclear on whether concepts in opposition to belonging, such as loneliness, isolation, and alienation are commonly discussed as possible equivalents to low-form belonging (Allen et al., 2021). That is, to what extent are states of loneliness or isolation the same as not feeling a sense of belonging.

Benefits of Belonging for Students

The challenges of university life extend well beyond needing to pass assessments and graduate. For many students, there are personal and professional pressures as well as systemic bias against them in their ability to succeed. However, university students who feel a genuine sense of belonging during their studies tend to be better equipped to engage meaningfully in their studies, and be resilient in the face of the turbulence and necessary destabilising process that higher education processes pose (Barnett, 2022).

Student Success and Achievement

Student sense of belonging may be a key contributor to supporting students to succeed in their subjects and achieve academically. Tinto (1987) highlighted the importance of academic and social integration of individuals into college communities to foster student connection and mitigate against social isolation. In a chemistry unit (Edwards et al., 2022), initial evidence was provided for a recursive belonging-performance loop, where changes in social belonging might influence academic achievement, and continue to influence each other as students feel more isolated and less confident in their ability to succeed. Likewise, those students who reported higher levels of institutional belongingness tended to achieve higher academic performance, and this was explained through student self-efficacy and metacognitive strategies (Sotardi, 2022).

Adjustment, Persistence, and Retention

Sense of belonging on campus supports students to be able to persist in their studies, despite competing demands. Students who completed a preparation program on student-faculty interactions, student-peer interactions, sense of belonging, and first-year performance tended to perform better in the following year of study (van Herpen et al., 2020). Critically, technology influences the relationship belonging has to student persistence. Online social media, for example, had mixed effects on student sense of belonging (used as a proxy for retention: Strayhorn, 2012). Although, the online delivery models have changed significantly, with introductions of artificial intelligence embedded into curriculum that offer forms of social support (Lodge et al., 2023), and can hinder practices of self-directed learning.

Diversity, Equity, and Inclusion

An equity agenda ought to have student sense of belonging at the fore, as an important equalising factor for diverse students to feel included in academic and social life. Sense of belonging interventions will have different effects on diverse students. For example, Hausmann et al. (2009) found their intervention only had a direct effect on white student sense of belonging, and an indirect effect on persistence intentions and behaviours with African American students. Importantly, feelings of inclusion and belonging are not the same, with belonging more closely related to feelings of authenticity and inclusion to negative affect (Slepian et al., 2020). Inclusion may be more state-like, with genuine belonging more difficult to come by.

Psychological Wellbeing

In Australia, young people (aged 18-24) had highest suicide prevalence rates, more than double any other age range (AIHW, 2023); a number consistent with U.S. university students (Committee on Mental Health et al., 2021). Mental health and psychological distress concerns among students is growing (Baik et al., 2018), with generalised psychological distress among 84 percent of the 6,479 Australian university student sample (Stallman, 2010), compared to lower numbers in the Australian population (AIHW, 2023). University student life is a place of heightened anxiety for many (Barnett, 2022), particular with practices of unlearning, relearning, and reshaping identities towards a learner, and then towards a leader or future worker. Sense of belonging through quality relationships is a protective factor for loneliness, life satisfaction, and wellbeing (Mellor et al., 2008). This is generally consistent in university students (e.g., Knox et al., 2020). In a postgraduate cohort, student wellbeing was contributed to by multiple facets of belonging including spatial, relational, and cultural factors.

Factors That Foster Belonging

Adopting the Allen et al. (2021) integrative framework for understanding, assessing, and fostering belonging, I examine the generative mechanisms for belonging through four lenses relating to competencies of belonging, opportunities to belong, motivations to belong, and perceptions of belonging. These provide a holistic approach to considering the factors that may foster belonging across universal contexts, as applied to the higher education context.

Competencies of Belonging

The competencies needed to belong are “having a set of skills and abilities (both subjective and objective) needed to connect and experience belonging” (Allen et al., 2021, p. 92). That is, the kind of skills needed to form meaningful relationships like communication, empathy, and emotional intelligence. In a longitudinal analysis of sense of belonging, Crawford et al. (2023) highlight that, of the top ten factors that contribute to a sense of belonging, support to settle and quality inductions were key to success. Further analysis evidenced that teamwork skills development – much more than groupwork – was quite important to a student’s sense of belonging. That is, when students were equipped with the skills required to belong, and supported to build foundational knowledge about what university is, and tools to navigate university life, they tended to experience higher rates of belonging. The use of group work may be a useful mechanism to practice and engage in collaborative learning with possible peer bonds forming, although the data indicated that the skills to work in teams were much more important.

Technological changes to university life may also have a material effect on future student competencies to belong. Some evidence highlights increased technological reliance is decreasing social competency (in high school students: Pierce, 2009). Dependency on technology-based communication potentially makes it more difficult to form meaningful connections with others, and an increased level of social anxiety around face-to-face communication methods. Emergent evidence also suggests that artificial intelligence in curriculum may be replacing traditional student-professional partnering (e.g., librarian, academic advisor) useful for building social competency over time in students (Crawford et al., 2024). Universities will have a role in mediating the relationship between students and technologies like ChatGPT if it hopes to be a place of connection and belonging, and build the social skills and confidence required to generate a quality sense of belonging; although this is quite complicated (Lodge et al., 2023).

Opportunities to Belong

The opportunities to belong include “the availability of groups, people, places, times, and spaces that enable belonging to occur.” (Allen et al., 2021, p. 92). Alongside settling and orientation supports, Crawford et al. (2023) found opportunities to form meaningful connections with peers through interaction was the largest collective contributor to their sense of belonging. However, the predictive relationships were higher when the students they were interacting with were local students rather than different students. The latter of which may directly disadvantage minority or international students, who may find it difficult to find students who share similar identifiers as themselves, or local students who are willing to form relationship bonds with new students. Although this is not the case in all studies, students who had positive experiences with diverse peers and had genuine and meaningful opportunities to engage in campus community experienced a higher sense of belonging (Nunez, 2009).

The data provided strong support for orientations and adjustment supports (Crawford et al., 2023) as crucial in cultivating sense of belonging. The transition approach (Kift et al., 2010) argues that an effective transition from diverse backgrounds helps first-year students to feel confident in their ability to achieve, and a sense of belonging in their new academic community. Approaches to orientation, however, seem to focus more on knowledge delivery (e.g., university locations and services) over supporting students to make their first friend on campus (e.g., van Gijn-Grosvenor et al., 2020). In a Griffith University example, the PECS model (purpose, expectations, connections, and support) provides dedicated ice-breaker time

during their welcome sessions. While these offer a useful example, it may be more impactful to have deeper and embedded opportunities to build student relationships among small groups over a prolonged period. For example, some universities offer hiking activities and small one-day retreat activities for students to make connections with place and people. Tice et al. (2021) highlighted that informal time around class was a contributor to sense of belonging in face-to-face and online learning environments.

In a Special Issue of *Student Success* (Barney et al., 2022), the focus was on how universities foster connections with students, with recognition of the importance of developing student connections with diverse people across their learning journey from workplace supervisors in placements to learning librarians, local student representatives, peers, and teachers. Universities have typically sought to foster relationship building between students and other formal members of the university learning community – peer, teacher, advisor. The opportunity to create connection is through embedding space to form connections in informal spaces. For example, in one U.S. study, 72 and 61.4 percent of students consumed coffee and tea at least once annually (Mahoney et al., 2019). When asked of the reason for consumption, most indicated energy/taste, but 39.1 percent indicated opportunities to connect with others. This is consistent with a barista diary that indicates coffee transactions often ought to be more than simply transacting caffeine (Lee & Ruck, 2022). These informal spaces are underutilised in student and campus life, and on-campus procurement with a focus on welcoming staff and positive vibrant informal spaces is important (and a much higher predictor of student belonging than learning and teaching spaces).

Motivations to Belong

The motivation to belong is the “need or desire to connect with others” (Allen et al., 2021, p. 93). This approach stems deeply from the belonging hypothesis (Baumeister & Leary, 1995) that argues that humans need a fundamental set of high quality and meaningful interactions with others. This factor, while useful to understanding why students experience a sense of belonging, it does provide contextual evidence for the earlier discussed relationship between student interactions and sense of belonging. Students, like all humans, have an innate desire to want to form meaningful social bonds with others. Although, across different demographic cohorts, baseline levels of social support vary with male students (Dwyer & Cummings, 2001), students of colour attending primarily white institutions (Negga et al., 2007), students with disability (Lombardi et al., 2014), among others, reporting lower levels of social support. This could indicate that, some students enter university with varied levels of social connection – parents, peers, partners, coworkers – and may require different levels of social satisfaction at university. That is, some students may need greater support to build their social networks during university, and other students may have sufficient social bonds without university intervention.

Perceptions of Belonging

The perceptions of belonging are a “person’s subjective feelings and cognitions concerning their experiences” (Allen et al., 2021, p. 94). Students from non-prototypical student backgrounds can experience perceptions of not belonging at university. That is, some students will see a lack of other students with similar characteristics to themselves, and find it more difficult to believe that they belong during university. In one study, diverse peer interactions and perceptions that the institution was committed to diversity buffered negative effects of racial discrimination and a lower sense of belonging among students of colour (Hussain &

Jones, 2019). Students from minority backgrounds are less likely to identify with the values, beliefs and norms of prototypical students and find it more difficult to connect (van Gijn-Grosvenor & Huisman, 2020). Stanford scholars have taken lead roles in attempting to support attitude-change among minority students' sense of belonging (Walton & Cohen, 2011, among others).

Belonging may also be an emotionally contagious effect, particularly in relationships of power. In Crawford, N. et al. (2022), evidence is provided that the sense of belonging felt by mature-aged students in regional and remote areas is influenced by staff casualisation among other factors. Approaches to building a culture of student belonging may need to begin with building an academic and professional culture of belonging that students are integrated into, rather than treating human resource management and student processes as distinct. In reflecting on scholars' explicit responses to sense of belonging, curriculum was an underrepresented higher educational tool (see *Journal of University Teaching and Learning Practice Special Issue on belonging*: Press et al., 2022). There are diverse approaches to teaching methods that aim to foster student connection. Relational pedagogy (or more appropriately in higher education, *relational andragogy*), where quality and caring teacher-student relationships sit adjacent in importance to assessments and content (Hinsdale, 2016).

Discussion

Students Need to Belong *During* University, Not *to* University

Universities have often approached sense of belonging as a mandatory function of study. This is perhaps an unhelpful approach – where *learning* is the mandatory function – to supporting diverse learners to feel they belong during their study period. Students are likely to experience belonging from multiple anchors – home, work, study, community – and rather than acting in competition with these forces for belonging, may seek to better map and understand those students who do have strong social support outside of their studies. Some students have salient personal lives, and are unlikely to seek an active student life; their persistence and success likely do not need intervention from the institution. Other students have less social support, and personal support structures geared towards university success. The latter students will require greater support to build a sense of belonging to remain in university and to reconstruct their identities as learners. An equity lens here means much greater understanding of times when students do not belong, and evidence based responses to support them building confidence in their propensity to learning effectively. In a learning environment with artificial intelligence as co-pilot, identity reconstruction may be even more complex than initially thought (e.g., Lodge et al., 2023).

Scholars, educational practitioners, and policymakers, seem to treat the concept of belonging as a *thing* that can be manufactured by institution towards that institution, and this may be naïve. The review, titled as belonging *during* rather than *at* or *towards* institution was intentional. While evidence does suggest universities can cultivate a sense of belonging on campus, students will network this sense of belonging against their existing connections to identities, places, and people. Some educators would argue that students with deep connection elsewhere such as full-time workers may actively avoid opportunities to connect with peers. It may be more appropriate to frame this as they already have a strong sense of community and belonging, and university-mandated connection activity may disincentivise the students as a forced practice they do not need. Instead, it may be more appropriate to embed measures of belonging and connection into first-year studies and generate spaces to support

those students who need greater help building meaningful relationships and social capital situated in place, rather than universal approaches to belonging.

Belonging during University is Human Mattering First, Role Second

It was clear from the evidence available that much of the approaches to cultivating student sense of belonging was driven by two key university departments: a professional department often termed 'student experience' and academic schools and disciplines through curriculum. Staff sense of belonging is rarely discussed in student belonging research. Some scholars discuss the concept of mattering (Kift, 2024), as a critical market that might go beyond sense of belonging to being valued and respected in places and important physical environment references. There is an important opportunity for practitioners to consider how these approaches can be more cohesive and to cultivate a sense of belonging of people in the university community rather than 'student', 'academic', or 'professional staff'. An institutional connection agenda ought to better reflect human processes as a key success criterion in evaluation procurement of on-campus services, of technologies to support administration or teaching, and of curriculum design decisions. These need to reflect that connection is more than space for ice-breakers, although these might help. Intentional design decisions in curriculum and on-campus need to be made that support students to make a small number of meaningful connections, rather than general connection opportunity (e.g., Tice et al., 2021). This could be small course-level peer learning circles that form part of delivery, or cross-level mentoring between new and established students to normalise learning anxiety and support adjustment. Likewise, and adopting a broaden and build lens (Fredrickson, 2004), strategies to foster student belonging may come from less precarious university staff roles, and greater collegiality among staff.

Measures Belonging Need Work

In a large scale study, we made the case of the causal predictors of belonging using the national QILT Student Experience Survey indicators as independent variables that could predict a single-item measure of belonging (Crawford et al., 2023). This study highlighted that social connection, social skills, informal space to make connections, and transition to university were key to fostering a sense of belonging to the institution. The study was limited however by its reliance on a single-item of belonging nested inside a learner engagement index. With the Accord Interim Report noting that universities "have an obligation to students to foster belonging", the measures currently used to understand when students belong is inadequate.

The Kift (2023) submission to the University Accord Panel offers a similar argument, and recommends for the need for better, and more deeply considered measures of belonging and engagement. This becomes more prominent when equity student sense of belonging may be less stable in precarious learning environments (Mercer-Mapstone et al., 2022). The emergence of belonging analytics (e.g., Buckingham Shum et al., 2023) may offer an important pathway to evaluating and measuring transient states of belonging towards establishing trait-like baselines of belonging. A more cohesive, academic-led and psychometrically-driven approach (e.g., Crawford & Kelder, 2019) may generate a stronger measure. The Office of Learning and Teaching may have been a place for such research to be commissioned.

Belonging Offers Social Mobility

The Australian Universities Accord Interim report set the vision to growing participation in the sector and note that 60 per cent of this growth will come from combination of equity groups. The Chetty et al. (2022) study provides significant evidence that universities (U.S. context) offer the greatest exposure to diverse socioeconomic actors compared to locations like neighbourhoods, churches, and schools. A sense of community and belonging facilitated by universities that supports campus-as-anchor to community rather than campus-as-community may enable students to be more deeply connected with other students. This shift of lens focuses on dismantling ivory-tower rhetoric of universities towards porous and transient university life. An effective belonging strategy deployed by universities could see higher education institutions may be a primary source of social mobility and inclusion for underserved and equity groups. The comment is further reinforced by Murphy et al. (2023)'s study identifying that interpersonal classism has a direct effect on belonging, but when belonging is fostered, student satisfaction and perceived competence increase and dropout intentions decrease.

A Belonging Andragogy

There has been a growing integration and embeddedness of technology in higher education learning and teaching. These, while affording greater opportunities to connect with learning materials, may come at an immediate cost to human connection and a delayed decline in sense of belonging. The embeddedness of technologies – particularly prominent ones like artificial intelligence – need to continue to value the role of human interaction as pathways to meaningful connection alongside convenience supports that tools like ChatGPT and Bard offer students and staff (Cowling & Birt, 2018). The importance of a transition pedagogy in the first year experience is supported by belonging evidence (e.g., Crawford et al., 2023). Kift (2023) highlights that an involving, relevant, and social transition into higher education offers a mechanism to reduce student anxiety upon entering university. The model remains significant to respond to unique challenges of first year experience that comprises peer interactions – a key component to sense of belonging. The focus needs to remain clearly on differences in curriculum for adults (andragogy) and children (pedagogy), where first year experience may support student transition from pedagogical approaches they are more familiar with (e.g., from high school) into approaches designed for independence, autonomy, responsibility, leadership, and self-direction.

The focus of this review has been on the benefits of student belonging, and how it can be fostered. The review has been less on the directionality of the relationships between sense of belonging and psychological wellbeing, relationship competency, engagement, loneliness, and academic success, and more about how they relate. For many of these constructs, they likely have a recursive relationship where students who are succeeding may feel more confident discussing with their peers how they are going and build confidence in their attitude toward belonging, and make more friends during study. And, likewise, a cultivated sense of belonging may enable students to feel more psychologically safe when they have lower academic performance than hoped for. The only relationship that is unidirectional is likely sense of belonging and retention, that is, a sense of belonging is argued by some as a contributor to intentions to stay or leave university, whereas the reverse is less logical.

Conclusion

Belonging is a complex construct – both trait-like and state-like – that is, having connection to feelings that are easily malleable and manipulated by context, and having deeper roots in competencies and opportunities needed to form social connection over time, and build the kinds of sense of community development needed to build lifelong learning relationships between students of courses and their university alma mater. This review provide a look at the current literature that speaks to what belonging is, what sense of belonging looks like for university students, and the strategies used to foster sense of belonging. It is important to conclude this review with an important signpost to the need to belonging sitting alongside learning and teaching practices networked to the students current place in the university and their community. And that campus and curriculum decisions must be made with reference to the effect it has on social connection and social capital to diverse students.

Acknowledgments and Disclosures

This review was funded by the Australian Universities Accord Branch of the Australian Government Department of Education. The review was developed solely by the author without support from artificial intelligence. I express my gratitude to scholars who have provided feedback on earlier drafts of this manuscript, including Professor Ian Anderson, Professor Sally Kift, Professor Michelle Picard, Professor Dianne Tice, Associate Professor Kelly-Ann Allen, Associate Professor Michael Cowling, and Associate Professor Jason Lodge.

References

- Ahn, M., & Davis, H. (2020). Four domains of students' sense of belonging to university. *Studies in Higher Education, 45*(3), 622-634.
- AIHW. (2023). *AIHW National Mortality Database and ABS Causes of Death, Australia 2023*. Australian Institute of Health and Wellbeing, Australian Government. <https://www.aihw.gov.au/suicide-self-harm-monitoring/data/populations-age-groups/suicide-among-young-people>
- AIHW. (2023). *Prevalence and impact of mental illness*. Australian Institute of Health and Wellbeing, Australian Government. <https://www.aihw.gov.au/mental-health/topic-areas/mental-illness>
- Allen, K-A., Kern, M., Rozek, C., McInerney, D., & Slavich, G. (2021). Belonging: A review of conceptual issues, an integrative framework, and directions for future research. *Australian Journal of Psychology, 73*(1), 87-102.
- Au, A., Caltabiano, N., & Vaksman, O. (2023). The impact of sense of belonging, resilience, time management skills and academic performance on psychological well-being among university students. *Cogent Education, 10*(1), 2215594.
- Barnett, R. (2022). The homeless student—and recovering a sense of belonging. *Journal of University Teaching & Learning Practice, 19*(4), 02.
- Barney, K., Crawford, N., & Delahunty, J. (2022). Fostering connections in higher education. *Student Success, 13*(3), i-iii.
- Baumeister, R., & Leary, M. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Interpersonal Development, 5*, 77-89.
- Bloom, B.S. (ed.) (1956) *Taxonomy of Educational Objectives: The Classification of Educational Goals*. New York: McKay & Co.
- Bikowski, D. (2007). Internet relationships: Building learning communities through friendship. *Journal of Interactive Online Learning, 6*(2), 131-141.
- Bradbury-Jones, C., & Isham, L. (2020). The pandemic paradox: The consequences of COVID-19 on domestic violence. *Journal of Clinical Nursing, 29*(1), 2047-2049.
- Buckingham Shum, S., Lim, L. A., Felten, P., & Uno, J. (2023). " Belonging Analytics": A Proposal. *Learning Letters*. <http://hdl.handle.net/10453/172143>
- Carter, J., Hollinsworth, D., Raciti, M., & Gilbey, K. (2018). Academic 'place-making': fostering attachment, belonging and identity for Indigenous students in Australian universities. *Teaching in Higher Education, 23*(2), 243-260.
- Chetty, R., Jackson, M., Kuchler, T., Stroebel, J., Hendren, N., Fluegge, R., ... & Wernerfelt, N. (2022). Social capital II: determinants of economic connectedness. *Nature, 608*(7921), 122-134.

- Committee on Mental Health, Scherer, L. A., Leshner, A. I., & National Academies of Sciences, Engineering, and Medicine. (2021). The Rate of Student Death from Suicide from the Big Ten Counseling Centers: 2009-2018. In *Mental Health, Substance Use, and Wellbeing in Higher Education: Supporting the Whole Student*. National Academies Press (US).
- Cowling, M., & Birt, J. (2018). Pedagogy before technology: A design-based research approach to enhancing skills development in paramedic science using mixed reality. *Information, 9*(2), 29.
- Crawford, J., Allen, K-A., Pani, B. & Cowling, M. (2024). When artificial intelligence replaces humans in higher education: The cost of loneliness, student success, and retention. *Manuscript Under Review*.
- Crawford, J., Allen, K-A., Sanders, T., Baumeister, R., Parker, P., Saunders, C., & Tice, D. (2023). Sense of belonging in higher education students: an Australian longitudinal study from 2013 to 2019. *Studies in Higher Education, 1-15*.
- Crawford, N., Emery, S., & Stone, C. (2022). Mature-aged students' experiences of learning online in regional and remote Australia: an ecological systems perspective. *Widening Participation and Lifelong Learning, 24*(2), 30-57.
- Crawford, J. A., & Kelder, J. A. (2019). Do we measure leadership effectively? Articulating and evaluating scale development psychometrics for best practice. *The Leadership Quarterly, 30*(1), 133-144.
- Dwyer, A., & Cummings, A. (2001). Stress, self-efficacy, social support, and coping strategies in university students. *Canadian Journal of Counselling and Psychotherapy, 35*(3).
- Edwards, J. D., Barthelemy, R., & Frey, R. (2021). Relationship between course-level social belonging (sense of belonging and belonging uncertainty) and academic performance in general chemistry 1. *Journal of Chemical Education, 99*(1), 71-82.
- Fredrickson, B. (2004). The broaden-and-build theory of positive emotions. *Philosophical transactions of the royal society of London. Series B: Biological Sciences, 359*(1449), 1367-1377.
- Gillen-O'Neel, C. (2021). Sense of belonging and student engagement: A daily study of first-and continuing-generation college students. *Research in Higher Education, 62*(1), 45-71.
- Gillespie, J., Cosgrave, C., Malatzky, C., & Carden, C. (2022). Sense of place, place attachment, and belonging-in-place in empirical research: A scoping review for rural health workforce research. *Health & Place, 74*, 102756.
- Gopalan, M., & Brady, S. T. (2019). College Students' Sense of Belonging: A National Perspective. *Educational Researcher, 49*(2), 134-137. <https://doi.org/10.3102/0013189X19897622>
- Gopalan, M., Linden-Carmichael, A. Lanza, S. (2022). College Students' Sense of Belonging and Mental Health Amidst the COVID-19 Pandemic. *Journal of Adolescent Health, 70*(2), 228-233. <https://doi.org/10.1016/j.jadohealth.2021.10.010>
- Gruttner, M. (2019). Belonging as a resource of resilience: Psychological wellbeing of international and refugee students in study preparation at German higher education institutions. *Student Success, 10*(3), 36-44.
- Hausmann, L., Ye, F., Schofield, J., & Woods, R. (2009). Sense of belonging and persistence in White and African American first-year students. *Research in Higher Education, 50*, 649-669.
- Hinsdale, M., & Ljungblad, A-L. (2016). Relational pedagogy. In *Oxford research encyclopedia of education*.
- Hussain, M., & Jones, J. M. (2021). Discrimination, diversity, and sense of belonging: Experiences of students of color. *Journal of Diversity in Higher Education, 14*(1), 63.
- Kahu, E., & Nelson, K. (2018). Student engagement in the educational interface: Understanding the mechanisms of student success. *Higher Education Research & Development, 37*(1), 58-71.
- Kennedy, J., Thomas, L., Percy, A., Dean, B., Delahunty, J., Harden-Thew, K., & de Laat, M. (2019). An Aboriginal way towards curriculum reconciliation. *International Journal for Academic Development, 24*(2), 148-162.
- Kift, S., Nelson, K., & Clarke, J. (2010). Transition pedagogy: A third generation approach to FYE-A case study of policy and practice for the higher education sector. *Student Success, 1*(1), 1-20.
- Kift, S. (2024). The quest for the holy grail of student engagement: Curriculum as the engagement integrator. In O'Shea, S. & Stone, S. *Research Handbook of Student Engagement in Higher Education*. Edward Elgar Publishing.
- Knox, M., Crawford, J., Kelder, J. A., Carr, A., & Hawkins, C. (2020). Evaluating leadership, wellbeing, engagement, and belonging across units in higher education: A quantitative pilot study. *Journal of Applied Learning and Teaching, 3*(Splss1), 108-117. <http://doi.org/10.37074/jalt.2020.3.s1.12>
- Lee, K., & Ruck, K. (2022). Barista Diary: An autoethnography studying the operational experience of third-wave coffee shop baristas. *International Journal of Hospitality Management, 102*, 103182.

- Lim, M., Smith, B., Owen, K., Engel, L., Qualter, P. & Surkalim, D. (2023). *State of the Nation Report: Social Connection in Australia 2023*. Ending Loneliness Together, Australia. https://ncq.org.au/wp-content/uploads/2023-Loneliness-Awareness_State-of-the-Nation-Report.pdf
- Lodge, J. M., de Barba, P., & Broadbent, J. (2023). Learning with Generative Artificial Intelligence Within a Network of Co-Regulation. *Journal of University Teaching & Learning Practice*, 20(7). <https://doi.org/10.53761/1.20.7.02>
- Lombardi, A., Murray, C., & Kowitt, J. (2016). Social support and academic success for college students with disabilities: Do relationship types matter?. *Journal of Vocational Rehabilitation*, 44(1), 1-13.
- Mahoney, C. R., Giles, G. E., Marriott, B. P., Judelson, D. A., Glickman, E. L., Geiselman, P. J., & Lieberman, H. R. (2019). Intake of caffeine from all sources and reasons for use by college students. *Clinical nutrition*, 38(2), 668-675.
- Maslow, A. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-96.
- Mellor, D., Stokes, M., Firth, L., Hayashi, Y., & Cummins, R. (2008). Need for belonging, relationship satisfaction, loneliness, and life satisfaction. *Personality and individual differences*, 45(3), 213-218.
- Mercer-Mapstone, L., Fatnowna, T., Ross, P., Bricknell, L., Mude, W., Wheat, J., ... & Zucker, I. (2022). Recommendations for equitable student support during disruptions to the higher education sector: Lessons from COVID-19. National Centre for Student Equity in Higher Education, Curtin University: De Laeter Way, Australia.
- Morris, C. (2021). "Peering through the window looking in": postgraduate experiences of non-belonging and belonging in relation to mental health and wellbeing. *Studies in Graduate and Postdoctoral Education*, 12(1), 131-144.
- Murphy, P. K., Kim, T., Joy, E. E., Shein, B., & Allan, B. A. (2023). Social mobility through doctoral education: Exploring identity, classism, and belongingness. *Journal of Diversity in Higher Education*. Advanced Online Publication.
- Negga, F., Applewhite, S., & Livingston, I. (2007). African American college students and stress: School racial composition, self-esteem and social support. *College Student Journal*, 41(4).
- Neves, J. & Brown, A. (2022). *Student Academic Experience Survey 2022*. York: AdvanceHE
- Núñez, A. (2009). A critical paradox? Predictors of latino students' sense of belonging in college. *Journal of Diversity in Higher Education*, 2(1), 46.
- O'Keeffe, P. (2013). A sense of belonging: Improving student retention. *College Student Journal*, 47(4), 605-613.
- Pedler, M., Willis, R., & Nieuwoudt, J. (2022). A sense of belonging at university: Student retention, motivation and enjoyment. *Journal of Further and Higher Education*, 46(3), 397-408.
- Pierce, T. (2009). Social anxiety and technology: Face-to-face communication versus technological communication among teens. *Computers in Human Behavior*, 25(6), 1367-1372.
- Pittman, L., & Richmond, A. (2008). University belonging, friendship quality, and psychological adjustment during the transition to college. *The Journal of Experimental Education*, 76(4), 343-362.
- Press, N., Andrew, M. B., Percy, A., & Pollard, V. A. (2022). Pedagogies of belonging in an anxious world: A collaborative autoethnography of four practitioners. *Journal of University Teaching & Learning Practice*, 19(4), 01.
- Slepian, M. L., & Jacoby-Senghor, D. S. (2021). Identity threats in everyday life: Distinguishing belonging from inclusion. *Social Psychological and Personality Science*, 12(3), 392-406.
- Social Research Centre. (2022). 2021 Student Experience Survey. Published Report. Accessed June 22, 2023. [https://www.qilt.edu.au/surveys/student-experience-survey-\(ses\)#report](https://www.qilt.edu.au/surveys/student-experience-survey-(ses)#report)
- Sotardi, V. (2022). On institutional belongingness and academic performance: Mediating effects of social self-efficacy and metacognitive strategies. *Studies in Higher Education*, 47(12), 2444-2459.
- Stallman, H. M. (2010). Psychological distress in university students: A comparison with general population data. *Australian Psychologist*, 45(4), 249-257.
- Strayhorn, T. (2012). Exploring the impact of Facebook and Myspace use on first-year students' sense of belonging and persistence decisions. *Journal of College Student Development*, 53(6), 783-796.
- Sulé, V., & Brown, R. (2023). My Body Is Not an Apology: Black Critical Agency as Sense of Belonging. *Journal of College Student Development*, 64(1), 1-15.
- Taff, S., & Clifton, M. (2022). Inclusion and Belonging in Higher Education: A Scoping Study of Contexts, Barriers, and Facilitators. *Higher Education Studies*, 12(3), 122-133.

- Thomas, L. (2002). Student retention in higher education: the role of institutional habitus. *Journal of Education Policy*, 17(4), 423-442.
- Tice, D., Baumeister, R., Crawford, J., Allen, K-A., & Percy, A. (2021). Student belongingness in higher education: Lessons for Professors from the COVID-19 pandemic. *Journal of University Teaching & Learning Practice*, 18(4), 2.
- Tinto, V. (2017). Reflections on student persistence. *Student Success*, 8(2), 1-8.
- Tinto, V. (1990). Principles of effective retention. *Journal of The First-Year Experience & Students in Transition*, 2(1), 35-48.
- Vaccaro, A., & Newman, B. (2017). A sense of belonging through the eyes of first-year LGBQ students. *Journal of Student Affairs Research and Practice*, 54(2), 137-149.
- van Gijn-Grosvenor, E., & Huisman, P. (2020). A sense of belonging among Australian university students. *Higher Education Research & Development*, 39(2), 376-389.
- Van Herpen, S., Meeuwisse, M., Hofman, W., & Severiens, S. (2020). A head start in higher education: the effect of a transition intervention on interaction, sense of belonging, and academic performance. *Studies in Higher Education*, 45(4), 862-877.
- Walton, G., & Cohen, G. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science*, 331(6023), 1447-1451.