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# Belonging, Enjoyment, Motivation, and Retention: University Students' Sense of Belonging Before and During the COVID-19 Pandemic

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## Abstract

University students with a higher sense of belonging have previously been found to experience higher levels of academic engagement, motivation, achievement, and self-confidence. This article compares findings from a survey on student sense of belonging and retention distributed to Australian students prior to the COVID-19 pandemic in 2019 ( $n = 570$ ) and during the COVID-19 pandemic in 2021 ( $n = 620$ ). At both time points, students who considered dropping out of university had a significantly lower sense of belonging than those who had not considered leaving their studies before completion. Sense of belonging was positively correlated to levels of enjoyment and motivation in university. For students whose parents had both completed university, levels of belonging were found to be significantly higher than first-generation students prior to, but not during, the COVID-19 pandemic. Belonging is connected to students' self-reported enjoyment of learning. When students feel connected to their university community, they are more likely to continue their studies.

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**Keywords**

university, belonging, enjoyment, motivation, retention, COVID-19

Belonging necessitates the interaction of cognitive, social, and environmental factors to foster students' feelings of purpose concerning their career ambitions, studies, and sense of connectedness to their institution (Meehan & Howells, 2019). This is important, as students at university with a greater sense of belonging have reported greater enjoyment and motivation than students with a lower sense of belonging (Lawson & Lawson, 2013; Pedler et al., 2021). Prior research has found that in educational settings, a sense of belonging is supported by social connections with peers and staff (Miller et al., 2018; van Gijn-Grosvenor & Huisman, 2020; Watson et al., 2010), positive social engagement with friends, societies, and informal extracurricular activities (De Sisto et al., 2021; van Gijn-Grosvenor & Huisman, 2020). Indeed, a sense of belonging at university has been linked with students' perseverance, self-esteem, attention, effort (Ulmanen et al., 2016), motivation, enjoyment (Pedler et al., 2021), emotional and cognitive engagement (Wilson et al., 2015), and academic performance (Freeman et al., 2010; Gillen-O'Neel, 2021).

From a theoretical perspective, belonging is situated in the middle of Maslow's hierarchy of needs (1968). It is placed after essential safety and psychological requirements are met and before experiencing esteem and desire for self-actualization. As such, belonging is regarded as a fundamental psychological necessity (Baumeister & Leary, 1995; Maslow, 1968), and "human beings are fundamentally and pervasively motivated by a need to belong" (Baumeister & Leary, 1995, p. 522). In an educational context, a student's sense of belonging is based on their feelings within the learning environment and is influenced by their sociorelational experiences (Black-Thomas, 2022; Gillen-O'Neel, 2021; Kelly, 2023; Maunder, 2018;). A sense of belonging at university represents students' personal feelings of integration and connection with their university community and institution (Gillen-O'Neel, 2021; Hoffman et al., 2002; Maunder, 2018), feeling that they fit in, are accepted, and are recognized for their abilities (van Gijn-Grosvenor & Huisman, 2020). The definition of belonging utilized in the literature that explores students' sense of belonging in Higher Education (cf. Maunder, 2018; Masika & Jones, 2016; Slaten et al., 2016; Thomas, 2012) is that belonging includes feelings of inclusion, and acceptance and being valued at university (Goodenow & Grady, 1993), and is the definition adopted for the current study.

The literature proposes that university students who possess a higher sense of belonging also experience greater achievement, motivation, academic engagement, and academic self-confidence (Gillen-O'Neel, 2021; Maunder 2018; Murphy & Zirkel, 2015; Slaten et al., 2016). Significantly, a greater sense of belonging has been found to influence more than just students' academic performance, including other socioemotional and psychological benefits such as developing positive

relationships, managing emotions, higher self-esteem, lower stress, and well-being (Slaten et al., 2016). Therefore, it is unsurprising that research has associated a higher sense of belonging with student retention (Gillen-O'Neel, 2021). A significant body of research exists that investigates the factors influencing student attrition and retention, informed by the theoretical framework developed by Tinto (1975). He reasoned that the probability of a student withdrawing from university is reduced when they experience social and academic integration. This may be because students who feel they do not belong have a greater risk of leaving their studies prior to completion, due to a lack of connection to their institution or experiencing an incompatibility between their background and the university (Mauder, 2018; Thomas, 2012). Thomas (2012, p. 10) points out that belonging is "critical to student retention and success," as developing a better understanding of student demographics and experiences related to their sense of belonging can provide insight into elevated attrition rates, particularly in university students' first year (Freeman et al., 2010). Essentially, a higher sense of belonging at university increases the likelihood they will continue with their studies (Kelly et al., 2023; Hoffman et al., 2002).

Importantly, it has been found that students' sense of belonging declines in the first year at university (Hausmann et al., 2007). Pedler et al. (2021) found that students who had often considered dropping out (i.e., leaving university prior to completing their course) had a lower sense of belonging than students who had not considered dropping out and, conversely, that students with a greater sense of belonging rarely or never thought about dropping out of their studies. Indeed, students with a low sense of belonging are more likely to leave university, as their beliefs may not fit with the student community, or they may feel their contributions are not valued by others (van Gijn-Grosvenor & Huisman, 2020). Ultimately, a low sense of belonging at university can affect students' academic performance and well-being (van Gijn-Grosvenor & Huisman, 2020), which may result in students disengaging from their learning, reducing the opportunity for academic success, and influencing their decision to drop out of their studies (Osterman, 2000). With this in mind, further research into university students' sense of belonging, and the impacts of COVID-19, is essential in higher education to extend the current understanding of how students' sense of belonging is connected to motivation, academic emotions, and student retention.

### *The Impacts of COVID-19 on Students' Sense of Belonging at University*

The coronavirus pandemic (COVID-19) has affected education at a global level, with lockdowns impacting how university students could engage with their studies. This disrupted the typical ways in which students may feel they belong at university, as their social and psychological separation from friends, family, and educators increased (Tice et al., 2021). Black Thomas (2022) found that students believed belonging and social support were crucial to their academic persistence. This is elucidated by a participating student in Shim and Yee's (2020, p. 4) study, who explained, "I feel like I

don't have a good sense of bonding with people or a sense of belonging because we don't see each other face to face or talk with the professors in-depth." This is important because positive social interaction and interpersonal relationships are basic requirements for students' sense of belonging (Ahn & Davis, 2020; Mulrooney & Kelly, 2020).

Students tend to consider university as home, considering it more than just a geographical location or physical buildings (Ahn & Davis, 2020). Kahu et al. (2020) found that students discussed belonging as an experience based on context, including belonging in the classroom, to their discipline, to the university, as friendships with peers, and positive relationships with teachers. As students' online behaviors may depend on students' feeling of connection with the learning community, the creation of welcoming online learning environments and the provision of support for students experiencing a low sense of belonging could improve students' online learning experience (Jeng et al., 2023). Indeed, teaching and learning online necessitates attention to not just the acquisition of knowledge and the delivery of learning materials but also the socioemotional aspects of the course, including students' experiences of learning and how students' connection to their learning community and their sense of belonging can enhance engagement and motivation (Yeigh et al., 2023). For university students to believe they are part of a learning community and support their sense of belonging in an online environment, individuals must feel cared for and be provided with opportunities that enable collaboration and online social interaction (Mulrooney & Kelly, 2020).

To develop a richer understanding of students' sense of belonging concerning their motivation in academic contexts, researchers must continue to explore university students' sense of belonging (Freeman et al., 2010). Thus, the current study aims to build on previous investigations into higher education students' sense of belonging, specifically exploring trends and correlations of students' sense of belonging before and during the COVID-19 pandemic at a regional university in Australia. The current study aimed to revisit key insights gained prepandemic (cf. Pedler et al., 2021) and compare findings with data collected during the COVID-19 pandemic in 2021. Existing literature does not explore the pre- and during-COVID-19 context in relation to belonging. The current study addresses this gap in our understanding regarding the change in students' sense of belonging before and during the pandemic to provide insight for higher education institutions and inform future studies in this field. Developing a clearer understanding of how such significant changes to students' learning experiences may influence their belonging can inform the support universities provide for their students to foster student belonging, enjoyment, motivation, and retention. To explore this gap in the literature, this article reports on the relationship between students' self-reported sense of belonging, motivation to study and enjoyment, assesses students' sense of belonging against their consideration of leaving university and compares changes in students' overall sense of belonging prior to and during the COVID-19 pandemic.

## Method

### Research Design

An online mixed-methods cross-sectional survey was developed following a review of the literature. The project received ethical approval from the Southern Cross University Human Research Ethics Committee (ECN-19-039). The online survey developed using Qualtrics software was distributed via email to all Southern Cross University (SCU) students in Session 1 of 2019 and 2021. The data collected was from different students at each time point. SCU is a regional university in regional and rural areas of northern New South Wales and South East Queensland and has a higher number of mature-aged students and first-in-the-family students than other Australian universities. Four members of the research team piloted the online survey. It included questions regarding student attrition, retention, reasons for considering leaving or staying at the university, and belonging factors. An information sheet and informed consent were provided at the onset of the survey. Participants were informed that the survey was voluntary and confidential and that they could withdraw at any time.

### Materials

**Participant Sociodemographic Characteristics.** Participants were asked questions relevant to age, gender, parenting or carer responsibilities, education and employment status, university entrance score, current degree, years at university, faculty or school, full or part-time study load, online or on-campus mode of study, current grade point average, and parents education level.

**Sense of Belonging Index.** Students' sense of belonging was evaluated using the Sense of Belonging Index initially developed for the Programme for International Student Assessment (PISA) 2003. The Sense of Belonging Index includes six items measured on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Lower scores indicate a greater sense of belonging. As the Sense of Belonging Index was initially used and validated with secondary students, the questions were updated for a university population by replacing the word "school" with "university." The index was updated to include a "neither agree nor disagree" option. The internal reliability of the scale is high in both Australia (Cronbach's  $\alpha = .856$ ) and other OECD countries (mean Cronbach's  $\alpha = .839$ ; OECD, 2018). Questions that measured belonging included: I feel like an outsider (or left out of things) at university; I make friends easily at university; I feel like I belong at university; I feel out of place at university; Other students seem to like me; and I feel lonely at university.

**Data Analysis Strategy.** Frequencies and percentages were calculated for descriptive statistics of categorical demographics. Pearson's correlations were used to compare

the relationship between students' sense of belonging, motivation to study and study enjoyment in 2019 and 2021. Assumption testing for *t*-tests and ANOVA were conducted with no normality, linearity, or homoscedasticity violations. An independent samples *t*-test was conducted to examine the mean differences in students' sense of belonging who had or had not considered leaving university studies. One-way ANOVA was conducted for students' sense of belonging and parents' education level.

## Results

The online surveys were completed in 2019 ( $n = 570$ ) and 2021 ( $n = 620$ ). Participant characteristics for each year are described in Table 1. Most students were between 18 and 34 years (47%; 48%) or 35 to 54 years (39%; 36%). There were more female (71%; 67%) than male (26%; 23%) students in both surveys. Most students were studying full-time (55%; 53%), and a majority proportion of students were currently working as well as studying (66%; 73%). There was an even split between on-campus (47%; 38%) and online (46%; 49%) students. However, it should be noted that all on-campus enrolled students were studying online during the 2021 survey due to COVID-19 stay-at-home restrictions mandated across the university. Students reported that one (21%; 21%), both (10%; 13%), or neither (62%; 54%) of their parents attended university.

For the 2019 survey, Pearson's correlation coefficients showed a significant relationship between students' sense of belonging, motivation to study, and study enjoyment. Similar relationships between students' sense of belonging, motivation to study, and study enjoyment were observed in 2021 (see Table 2). According to Cohen (1988), these correlations represent medium-large effect sizes.

An independent samples *t*-test found that students in 2019 who had considered leaving their university studies ( $M = 3.05$ ,  $SD = 0.78$ ) had a significantly lower sense of belonging than those who had not considered leaving their university studies ( $M = 3.56$ ,  $SD = 0.62$ ;  $t(262.57) = 7.83$ ,  $p < .001$ ,  $d = 0.72$ ). Similarly, in 2021, students who considered leaving their university studies ( $M = 2.52$ ,  $SD = 0.55$ ) had a significantly lower sense of belonging than those who had not considered leaving their university studies ( $M = 2.87$ ,  $SD = 0.44$ ;  $t(190.19) = 7.16$ ,  $p < .001$ ,  $d = 0.70$ ). Both effect sizes are considered medium-large, according to Cohen (1988). These findings are reflected in Figure 1.

A one-way ANOVA found a small but significant association in 2019 between sense of belonging and whether both ( $M = 3.43$ ,  $SD = 0.80$ ), one ( $M = 3.12$ ,  $SD = 0.80$ ), or neither parents ( $M = 3.13$ ,  $SD = 0.77$ ) had attended university,  $F(2, 534) = 3.91$ ,  $p = .021$ ,  $\chi^2 = .014$ , but no significant association in 2021,  $F(2, 534) = 0.19$ ,  $p = .827$ ,  $\chi^2 < .001$ . This relationship is shown in Figure 2.

For both the *t*-tests and ANOVA, it is important to note that independence may not be assumed due to the nature of the years containing different students, and some

**Table 1.** Participant Characteristics Split by Year of Survey.

	2019 (n = 570)	2021 (n = 620)
<b>Gender (n, %)</b>		
Female	409 (71%)	418 (67%)
Male	149 (26%)	140 (23%)
Other	9 (2%)	11 (2%)
Missing	3 (1%)	51 (8%)
<b>Age (n, %)</b>		
18–24 years	157 (27%)	154 (25%)
25–34 years	117 (20%)	145 (23%)
35–44 years	122 (21%)	111 (18%)
45–54 years	106 (18%)	108 (18%)
55–60+ years	65 (11%)	51 (8%)
Missing	3 (3%)	51 (8%)
<b>Highest educational level (n, %)</b>		
High school	132 (23%)	134 (22%)
University degree	308 (53%)	333 (58%)
Trade certificate	116 (20%)	101 (16%)
Missing	14 (4%)	2 (4%)
<b>Current study load (n, %)</b>		
Part-time	228 (39%)	224 (36%)
Full-time	319 (55%)	328 (53%)
Missing	23 (6%)	68 (11%)
<b>Current study mode (n, %)</b>		
On-campus	276 (47%)	232 (38%)
Online	266 (46%)	302 (49%)
Missing	28 (7%)	86 (13%)
<b>Current year of study (n, %)</b>		
1st year	196 (34%)	201 (32%)
2nd year	154 (27%)	161 (26%)
3rd year	109 (19%)	108 (17%)
4th year	46 (8%)	59 (10%)
Missing	65 (12%)	91 (15%)
<b>Employment status (n, %)</b>		
Do not work	100 (17%)	92 (15%)
Volunteer	30 (5%)	25 (4%)
Part-time	239 (41%)	269 (43%)
Full-time	145 (25%)	183 (30%)
Missing	56 (12%)	51 (8%)
<b>Parents attended university (n, %)</b>		
One	122 (21%)	128 (21%)
Both	59 (10%)	82 (13%)

(continued)



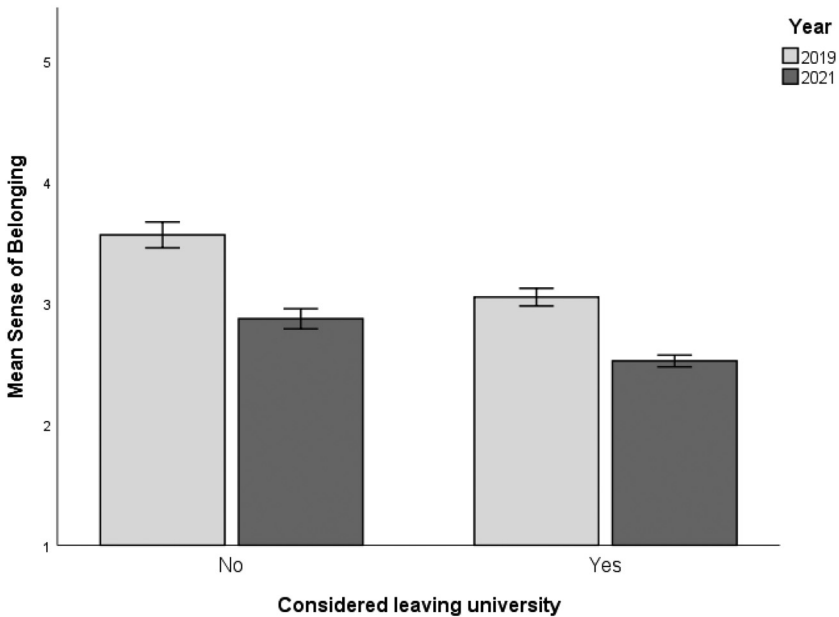
**Table 1.** Continued

	2019 (n = 570)	2021 (n = 620)
Neither	356 (62%)	337 (54%)
Missing	33 (7%)	73 (12%)

**Table 2.** Pearson's Correlation Coefficients for Sense of Belonging, Enjoyment, and Motivation.

		Enjoyment	Motivation
2019	Sense of belonging (n = 578)	.41**	.35**
2021	Sense of belonging (n = 596)	.41**	.37**

Note. \*\*p < .001.



**Figure 1.** Sense of belonging and students' consideration of leaving university studies.

students may have potentially completed both surveys. However, confidence intervals in Figure 3 infer a substantial difference in students' sense of belonging overall, with it decreasing in 2021.

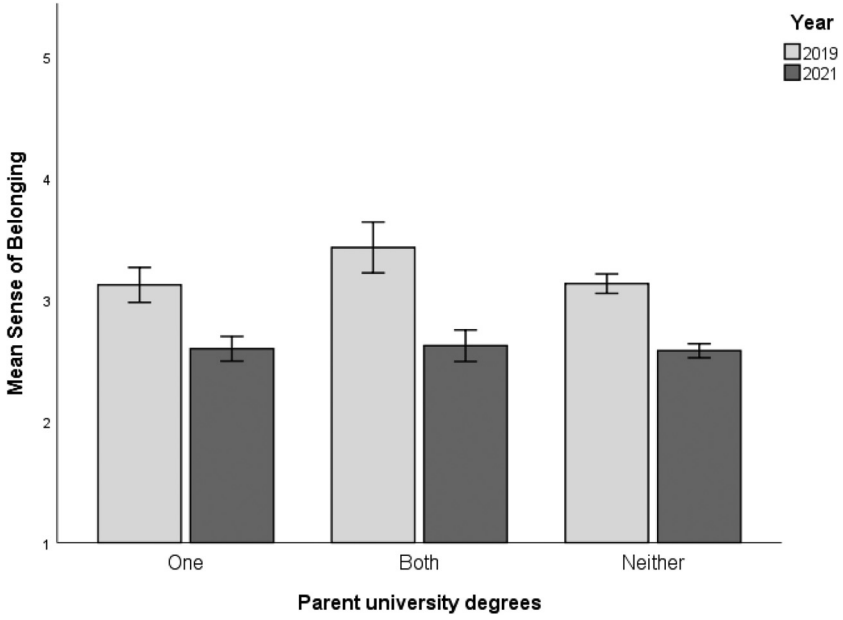


Figure 2. Sense of belonging and number of parents who attended university.

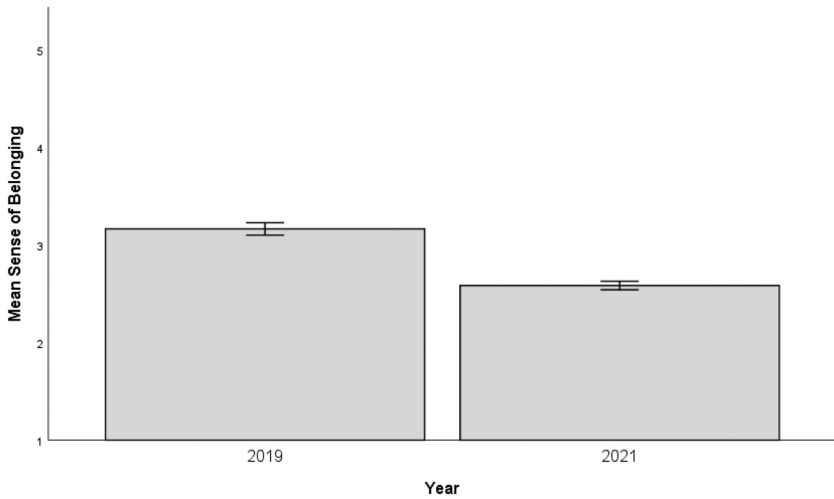


Figure 3. Sense of belonging split by year 2019 and 2021.

## **Discussion**

The current study addresses a gap in our understanding of the changes in students' sense of belonging before and during the pandemic and the relationships between belonging and related factors that may influence students' learning experiences. It was found that a significant relationship between belonging, enjoyment and motivation was present pre- and during COVID-19. Additionally, both sets of data found that students who had considered leaving university prior to completing their degree had a significantly lower sense of belonging than students who had not considered leaving university. However, despite finding a significant difference in the level of belonging for students with parents who had both completed university and those students whose parents had not (first-generation students) in the pre-COVID-19 data, this relationship was no longer significant during COVID-19, possibly due to the shift to online learning for all students. Finally, a key contribution from this study is that students' sense of belonging was found to be lower overall during the COVID-19 pandemic than pre-pandemic. The discussion of these pre- and during pandemic findings are elaborated in this section.

### ***Belonging, Enjoyment, and Motivation***

The current study confirmed a significant relationship, previously reported by Pedler et al. (2021), between belonging, enjoyment, and motivation. While connections between belonging, enjoyment, and motivation had been presented separately in previous literature, to the current authors' knowledge, Pedler et al. (2021) were the first to explore the association between these three factors and students' higher education experience. Thus, the current article, which has explored the relationship between belonging, enjoyment, and motivation during the COVID-19 pandemic, also makes a novel contribution as it demonstrates that the relationship between these factors remains despite the adversity faced by students and the changes to their study conditions during the pandemic.

Though Pedler et al. (2021) was the first study to establish a positive correlation between these three factors of belonging, enjoyment, and motivation, previous research had established relationships between these factors separately and will be briefly outlined below. Firstly, the relationship between participants' self-reported levels of belonging and motivation reiterates research and theory that connects belonging and motivation (cf. Maslow 1943, 1954) and, more recently, students' academic motivation (Freeman et al., 2010; Gillen-O'Neel, 2021; Mulrooney & Kelly, 2020; Slaten et al., 2016). Concerning achievement emotions, enjoyment is one of the most frequently experienced and is more likely to influence students' academic attainment than academic emotions that are experienced less frequently (Putwain et al., 2018). Academic enjoyment has been positively connected to students' academic effort, and it may mediate students' professed sense of belonging, suggesting that belonging acts as a mediator between effort and enjoyment (Sakiz et al., 2012).

Zengilowski et al. (2023) found that students who reported a greater sense of belonging seemed to enjoy their classroom experiences more than those who reported lesser levels of belonging. Prior research has also found that intrinsic motivation was positively correlated with enjoyment, as achievement emotions such as enjoyment are necessary for students' extrinsic motivation (e.g., achieving good grades) and intrinsic motivation (e.g., interest), which can influence students' learning experiences and attainment (Pekrun et al., 2011). Potential drivers for high levels of belonging at university and correlated enjoyment and motivation in their studies may be due to participants reporting that they made friends easily and felt other students liked them. Continued research into the relationship between these three variables will provide greater insights into students' levels of belonging and how this supports student achievement, enjoyment, and motivation to study at university.

### *Belonging and University Retention*

Findings were consistent between the 2019 and 2021 data in that students who had considered leaving university prior to completion of their degree had a significantly lower sense of belonging than students who had not considered leaving university. According to the Theory of Planned Behavior, the strongest predictor of actual behavior is an overt statement of intention (Ajzen, 1991). Thus, students' consideration of leaving university before they complete their studies may predict students' intention to drop out of university. In relation to this, Bryk et al. (2013) found that the most reliable predictor of course persistence was students' certainty about their belonging. This finding supports the idea that students' sense of belonging may influence their persistence and intention to complete their studies.

The replication of the finding in the current study from 2019 to 2021 regarding a relationship between students' sense of belonging and consideration to drop out of their course raises concerns about the number of students who consider leaving their studies and the attrition data both internationally and in Australia. In the United States, this includes up to 50% of students; in the United Kingdom about 30% of students consider withdrawing, and 20% in Australia (Meehan & Howells, 2019). Therefore, the current study supports previous findings that university students who have a lower sense of belonging have a greater risk of dropping out of their studies (Fourie, 2020; Soria & Stubblefield, 2015) and contributes findings that solidify the relationship between students' sense of belonging and their consideration of leaving their studies.

### *Belonging and First-Generation Students*

The current study did not find a noteworthy distinction in the levels of belonging for students with no parents or only one parent who attended university and those with parents who had both completed university. This is in contrast to pre-pandemic findings in Pedler et al. (2021), which found a significant difference in the level of belonging for

those students with parents who had both completed university and those whose parents had not. It may be that the shift for all students to study online at the beginning of the pandemic somewhat leveled the playing field in this respect, as students whose parents had both attended university had the same experience adjusting to online learning as those students whose parents had not attended university. Gopalan and Brady (2019) suggest that this shift to online learning during the pandemic may have shielded first-generation students from social exclusion on-campus and on-campus experiences that may trigger anxiety.

In their scoping review, Pandya and Lodha 2022 found that learning online during the COVID-19 pandemic allowed students to maintain their study routine with less anxiety, which is beneficial for their psychological resilience and mental health in the long term. Gillen-O'Neel (2021) found that first-generation students' participation and attendance fluctuated with their day-to-day sense of belonging, suggesting that for first-generation students, their daily sense of belonging may provide the additional motivation and confidence they require to attend and participate in their learning at university. However, Gopalan and Brady (2019) found that first-generation students reported a lower sense of belonging overall than their peers. While these findings do not specifically explain the difference between prepandemic and during-COVID-19 findings in relation to first-generation students, they may provide some insight into the role of online learning in protecting students from social exclusion and anxiety that may be experienced by some on-campus that could potentially impact some students' sense of belonging at university.

### ***Belonging Lower Overall During COVID-19 Pandemic***

In comparing data collected in 2019 and 2021 from students attending a regional university in Australia, the current study found that students' sense of belonging was lower overall during the COVID-19 pandemic. In contrast, Gopalan and Brady (2019) did not find significant changes in students' reports of belongingness at their university, despite campus closures and mandates regarding social distancing mandates. This may be explained by the fact that data in that study was collected in the first few months of the COVID-19 pandemic in 2020 and may suggest that the prolonged nature of the pandemic may have contributed to the reduction in students' sense of belonging as lockdowns and learning online continued into 2021 when the data in the current study was collected. It may also be that data in the current study was collected at a regional Australian university, in which the transition to online learning and other pandemic restrictions, such as limited access to the campus and cancellation of on-campus events and lockdowns, may have impacted students' sense of belonging. The finding that students' sense of belonging was lower overall during the COVID-19 pandemic is a novel contribution to the research on belonging and student retention.

Research conducted in universities during the pandemic did find a range of positive findings linked with the transition to online learning, such as convenience (Hussein

et al., 2020; Shim & Lee, 2020), time-effectiveness, cost-effectiveness, enhanced participation (Hussein et al., 2020), and students' improved digital literacy skills (Amponsah et al., 2022). This body of literature also found that the shift to online learning resulted in improved interactions with teachers and learning materials (Serhan, 2020; Shim & Lee, 2020; Yau et al., 2022), greater flexibility in comparison to face-to-face lessons that allowed students to access classes while physically isolated (Raccanello et al., 2022; Serhan, 2020; Shim & Lee, 2020), and that interaction in written discussions online could maintain students' sense of belonging (Zengilowski et al., 2023).

However, studies have also highlighted the negative impacts of this abrupt change to online learning during the COVID-19 pandemic. These include issues with the internet and technology (Almendingen et al., 2021; Hussein et al., 2020; Serhan, 2020; Shim & Lee, 2020), the quality of support, interaction and feedback from instructors (Adnan & Anwar, 2020; Hussein et al., 2020; Serhan, 2020; Shim & Lee, 2020), reduced effort and motivation (Almendingen et al., 2021; Hussein et al., 2020), reduced levels of concentration (Shim & Lee, 2020), Zoom fatigue (Amponsah et al., 2022), social isolation/a lack of social interaction (Adnan & Anwar, 2020; Almendingen et al., 2021; Appleby et al., 2022), academic changes, and disruption to support services (Appleby et al., 2022). The global pandemic also meant that university educators were abruptly expected to shift to teaching online, in some cases needing to master new technology to do so (Tice et al., 2021). Importantly, Mulrooney and Kelly (2020) found that teachers and students experienced reduced feelings of belonging during lockdown, with teaching staff identifying teacher presence in facilitating active learning as critical to help students feel that they belong. Additionally, Sutcliffe et al. (2022) suggest the increased experiences of isolation through the shift to online learning have had a mainly negative effect on students' engagement and sense of belonging at university.

Despite Gopalan and Brady's (2019) finding that overall student belonging had not changed at the beginning of the pandemic in 2020, they reported that first-generation and minority students reported a lower sense of belonging than their peers. This is important because it has been found that a sense of belonging buffers depressive symptoms and anxiety and is a predictor of university students' mental health (Gopalan et al., 2022). Appleby et al.'s (2022) investigation of the opinions of undergraduate students toward online learning during the mandatory transition to online learning caused by COVID-19 recommends higher education institutions address the aspects of the student experience that were impacted negatively by the pandemic to support a successful university experience and student well-being (Appleby et al., 2022). Skipper and Fay (2023) found that students who report a stronger sense of belonging experienced a higher level of mental well-being and lower stress. They suggest that to improve students' sense of belonging and support students' mental health, higher education institutions can foster students' identification at a group level to enhance well-being using community-based approaches within each academic school. This could include hosting events to bring staff and students together, developing norms

around behaviors that support well-being and positive help-seeking behaviors, and creating positive learning communities (Skipper & Fay, 2023). These recommendations outline how universities can improve students' sense of belonging to support retention and achievement.

These findings are important as a higher sense of belonging among students, characterized by feelings of inclusion, acceptance, and value within the university environment, reduces the likelihood of contemplating dropout, and increases motivation and enjoyment in their studies. Students are more likely to continue their studies if they feel a connection with their university community, which means the level of a student's sense of belonging is important for universities, as it has the potential to increase academic motivation and student retention.

### *Limitations*

The study was conducted at a regional university in Australia, as such findings may not be generalizable to other universities with student populations predominantly made up of school leavers from metropolitan areas. The data from the two time points constituted two different student groups. Therefore, the main point of difference between the groups could be due to inter-individual or cohort differences and not just a result of the COVID-19 pandemic on student belonging. Also, participants' self-report responses may be considered to be disposed to social or subjective bias. However, this measure for students' sense of belonging was considered the most economical, valid, and reliable assessment instrument for the current study. Additionally, to measure participants' motivation and enjoyment, only a single question was used for factor unlike the use of an established international scale to measure belonging. These single questions remained the same during the 2019 and 2021 data collection points for consistency in results, though the inclusion of verified scales in future research to gauge the relationship between these three factors (belonging, motivation, and enjoyment) would allow further exploration and consolidation in of the findings presented as part of this study.

### *Future Research*

The current study confirmed findings across two data collection points in 2019 and 2021 which contributes novel insight to the literature exploring students' sense of belonging. A point of interest for future research would be further investigating the correlation between belonging and first-generation students and students who have had one or both parents attend university, as the current study found that this relationship changed during the pandemic. This is especially important as the beneficial effects of belonging encompass students' academic outcomes and mental health (Gopalan & Brady, 2019). Additionally, research that further explores the relationship between belonging, enjoyment (achievement emotions), and motivation, the direction of the relationship, and if/how these factors may contribute to student achievement and retention would be an incredibly valuable contribution to the literature.

## Conclusion

The current study found that when students have a higher sense of belonging, which encompasses feeling included, accepted, and valued at university, they are less likely to consider dropping out and are more likely to be motivated and enjoy their studies. Additionally, it was found that students had a lower sense of belonging overall during the COVID-19 pandemic than they did prepandemic. As such, the level of a students' sense of belonging is of high importance to universities as it may contribute to an increase in student retention and academic motivation. Belonging is connected to students' self-reported enjoyment in learning, and promoting students' academic motivation can improve academic outcomes and positive academic behaviors. This is significant because when students feel connected to their university community, they are more likely to continue their studies.


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## References

- Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. *Journal of Pedagogical Sociology and Psychology*, 2(1), 45–51. <https://doi.org/10.33902/JSPS.2020261309>
- Ahn, M., & Davis, H. H. (2020). Four domains of students' sense of belonging to university. *Studies in Higher Education*, 45(3), 622–634. <https://doi.org/10.1080/03075079.2018.1564902>
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 26(9), 1113–1127. <https://doi.org/10.1080/08870446.2011.613995>
- Almendingen, K., Sandsmark Morseth, M., Gjolstad, E., Brevik, A., & Torris, C. (2021). Student's experiences with online teaching following COVID-19 lockdown: A mixed methods explorative study. *Plos One*, 16(8), 0250378. <https://doi.org/10.1371/journal.pone.0250378>
- Amponsah, S., van Wyk, M. M., & Kolugu, M. K. (2022). Academic experiences of “zoom-fatigue” as a virtual streaming phenomenon during the COVID-19 pandemic. *International Journal of Web-Based Learning and Teaching Technologies*, 17(6), 1–16. <https://doi.org/10.4018/IJWLTT.287555>



- Appleby, J. A., King, N., Saunders, K. E., Bast, A., Rivera, D., Byun, J., Cunningham, S. Khera, C., & Duffy, A. C. (2022). Impact of the COVID-19 pandemic on the experience and mental health of university students studying in Canada and the UK: A cross-sectional study. *BMJ Open*, 24(12), 1–13. <https://doi.org/10.1136/bmjopen-2021-050187>
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497–529. <https://doi.org/10.1037/0033-2909.117.3.497>
- Black Thomas, L. M. (2022). Stress and depression in undergraduate students during the COVID-19 pandemic: Nursing students compared to undergraduate students in non-nursing majors. *Journal of Professional Nursing*, 38(0), 89–96. <https://doi.org/10.1016/j.profnurs.2021.11.013>
- Bryk, A. S., Yeager, D. S., Hausman, H., Muhich, J., Dolle, J. R., Grunow, A., LaMahieu & Gomez, L. (2013). Improvement research carried out through networked communities: Accelerating learning about practices that support more productive student mindsets. [https://www.carnegiefoundation.org/wp-content/uploads/2014/09/improvement\\_research\\_NICs\\_bryk-yeager.pdf](https://www.carnegiefoundation.org/wp-content/uploads/2014/09/improvement_research_NICs_bryk-yeager.pdf)
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Erlbaum. <https://doi.org/10.4324/9780203771587>
- De Sisto, M., Huq, A., & Dickinson, G. (2021). Sense of belonging in second-year undergraduate students: The value of extra-curricular activities. *Higher Education Research & Development*, 41(5), 1727–1742. <https://doi.org/10.1080/07294360.2021.1902951>
- Fourie, C. M. (2020). Risk factors associated with first-year students' intention to drop out from a university in South Africa. *Journal of Further and Higher Education*, 44(2), 201–215. <https://doi.org/10.1080/0309877X.2018.1527023>
- Freeman, T. M., Anderman, L. H., & Jensen, J. M. (2010). Sense of belonging in college freshmen at the classroom and campus levels. *The Journal of Experimental Education*, 75(3), 203–220. <https://doi.org/10.3200/JEXE.75.3.203-220>
- 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(0), 45–71. <https://doi.org/10.1007/s11162-019-09570-y>
- Goodenow, C., & Grady, K. E. (1993). The relationship of school belonging and friends' values to academic motivation among urban adolescent students. *The Journal of Experimental Education*, 62(1), 60–71. <https://doi.org/10.1080/00220973.1993.9943831>
- 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. <http://dx.doi.org/10.1016/j.jadohealth.2021.10.010>
- Hausmann, L. R. M., Schofield, J. W., & Woods, R. L. (2007). Sense of Belonging as a Predictor of Intentions to Persist Among African American and White First-Year College Students. *Research in Higher Education*, 48(7), 803–839. <http://dx.doi.org/10.1007/s11162-007-9052-9>
- Hoffman, M., Richmond, Y., Morrow, J., & Salomone, K. (2002). Investigating "sense of belonging" in first-year college students. *Journal of College Student Retention: Research, Theory & Practice*, 4(3), 227–256. <https://doi.org/10.2190/DRYC-CXQ9-JQ8V-HT4V>
- Hussein, E., Daoud, S., Alrabaiah, H., & Badawi, R. (2020). Exploring undergraduate students' attitudes towards emergency online learning during COVID-19: A case from the UAE Johnson. *Children and Youth Services Review*, 119(0), 1–7. <https://doi.org/10.1016/j.childyouth.2020.105699>

- Jeng, A., Bosch, N., & Perry, M. (2023). Sense of belonging predicts perceived helpfulness in online peer help-giving interactions. *The Internet and Higher Education*, 57(0), 100901. <https://doi.org/10.1016/j.iheduc.2022>
- Kahu, E. R., Picton, C., & Nelson, K. (2020). Pathways to engagement: A longitudinal study of the first-year student experience in the educational interface. *Higher Education*, 79(0), 657–673. <https://doi.org/10.1007/s10734-019-00429-w>
- Kelly, M. (2023). Re-imagining pedagogical approaches to support student engagement in secondary schools. In D. Lynch, T. Yeigh, & W. Boyd (Eds.), *Re-imagining teaching improvement: From early childhood to university*. Singapore: Springer.
- Kelly, M. L., Yeigh, T., Hudson, S., Willis, R., & Lee, M. (2023). Secondary teachers' perceptions of the importance of pedagogical approaches to support students' behavioural, emotional and cognitive engagement. *The Australian Educational Researcher*, 50(4), 1025–1047. <http://dx.doi.org/10.1007/s13384-022-00540-5>
- Lawson, M. A., & Lawson, A. A. (2013). New conceptual frameworks for student engagement research, policy, and practice. *Review of Educational Research*, 83(3), 432–479. <https://doi.org/10.3102/0034654313480891>
- Masika, R., & Jones, J. (2016). Building student belonging and engagement: Insights into higher education students' experiences of participating and learning together. *Teaching in Higher Education*, 21(1), 138–150. <https://doi.org/10.1080/13562517.2015.1122585>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396. <https://doi.org/10.1037/h0054346>
- Maslow, A. H. (1954). *Motivation and personality*. Harper.
- Maslow, A. H. (1968). *Toward a psychology of being*. Van Nostrand.
- Maunder, R. E. (2018). Students' peer relationships and their contribution to university adjustment: The need to belong in the university community. *Journal of Further and Higher Education*, 42(6), 756–768. <https://doi.org/10.1080/0309877X.2017.1311996>
- Meehan, C., & Howells, K. (2019). In search of the feeling of 'belonging' in higher education: Undergraduate students transition into higher education. *Journal of Further and Higher Education*, 43(10), 1376–1390. <https://doi.org/10.1080/0309877X.2018.1490702>
- Miller, A. L., Williams, L. M., & Silberstein, S. M. (2018). Found my place: The importance of faculty relationships for seniors' sense of belonging. *Higher Education Research & Development*, 38(3), 594–608. <https://doi.org/10.1080/07294360.2018.1551333>
- Mulrooney, H. M., & Kelly, A. F. (2020). COVID-19 and the move to online teaching: Impact on perceptions of belonging in staff and students in a UK widening participation university. *Journal of Applied Learning & Teaching*, 3(2), 1–14. <https://doi.org/10.37074/jalt.2020.3.2.15>
- Murphy, M. C., & Zirkel, S. (2015). Race and belonging in school: How anticipated and experienced belonging affect choice, persistence, and performance. *Teachers College Record*, 117(12), 1–40. <https://doi.org/10.1177/016146811511701204>
- OECD. (2018). PISA 2015 Technical Report. <https://www.oecd.org/pisa/data/2015-technical-report/>. Accessed 2 July 2020
- Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research*, 70(3), 323–367. <https://doi.org/10.3102/00346543070003323>
- Pandya, A., & Lodha, P. (2022). Mental health consequences of COVID-19 pandemic among college students and coping approaches adapted by higher education institutions: A scoping review. *SSM - Mental Health*, 2, 100122. <http://dx.doi.org/10.1016/j.ssmmh.2022.100122>

- Pedler, M. L., Willis, R., & Nieuwoudt, J. E. (2021). A sense of belonging at university: Student retention, motivation and enjoyment. *Journal of Further and Higher Education, 46*(3), 397–408. <https://doi.org/10.1080/0309877X.2021.1955844>
- Pekrun, R., Goetz, T., Frenzel, A. C., Barchfeld, P., & Perry, R. P. (2011). Measuring emotions in students' learning and performance: The achievement emotions survey (AEQ). *Contemporary Educational Psychology, 36*(1), 36–48. <https://doi.org/10.1016/j.cedpsych.2010.10.002>
- Putwain, D. W., Becker, S., Symes, W., & Pekrun, R. (2018). Reciprocal relations between students' academic enjoyment, boredom, and achievement over time. *Learning and Instruction, 54*(0), 73–81. <https://doi.org/10.1016/j.learninstruc.2017.08.004>
- Raccanello, D., Balbontin-Alvarado, R., da Silva Bezerra, D., Burro, R., Cheraghi, M., & Dobrowolska, B., ... Aristovnik, A. (2022). Higher education students' achievement emotions and their antecedents in e-learning amid COVID-19 pandemic: A multi-country survey. *Learning and Instruction, 80*(0), 1–10. <https://doi.org/10.1016/j.learninstruc.2022.101629>
- Sakiz, G., Pape, S. J., & Hoy, A. W. (2012). Does perceived teacher affective support matter for middle school students in mathematics classrooms? *Journal of School Psychology, 50*(2), 235–255. <https://doi.org/10.1016/j.jsp.2011.10.005>
- Serhan, D. (2020). Transitioning from face-to-face to remote learning: Students' attitudes and perceptions of using zoom during COVID-19 pandemic. *International Journal of Technology in Education and Science, 4*(4), 335–342. <https://doi.org/10.46328/ijtes.v4i4.148>
- Shim, T. E., & Lee, S. Y. (2020). College students' experience of emergency remote teaching due to COVID-19. *Children and Youth Services Review, 119*(0), 1–7. <https://doi.org/10.1016/j.childyouth.2020.105578>
- Skipper, Y., & Fay, M. (2023). The relationship between the sense of belonging, mental wellbeing and stress in students of law and psychology in an English University. *European Journal of Legal Education, 4*(1), 5–25. <https://www.ejle.eu/index.php/EJLE/article/view/62/32>
- Slaten, C. D., Ferguson, J. K., Allen, K., Brodrick, D., & Waters, L. (2016). School belonging: A review of the history, current trends, and future directions. *Australian Psychological Society, 33*(1), 1–15. <https://doi.org/10.1017/edp.2016.6>
- Soria, K. M., & Stubblefield, R. (2015). Knowing me, knowing you: Building strengths awareness, belonging, and persistence in higher education. *Journal of College Student Retention: Research, Theory & Practice, 17*(3), 351–372. <https://doi.org/10.1177/1521025115575914>
- 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 and Learning Practice, 18*(4), 1–12. <https://doi.org/10.53761/1.18.4.2>
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89–125. <https://doi.org/10.3102/00346543045001089>
- Ulmanen, S., Soini, T., Pietarinen, J., & Pyhalto, K. (2016). Students' experiences of the development of emotional engagement. *International Journal of Educational Research, 79*(0), 86–96. <https://doi.org/10.1016/j.ijer.2016.06.003>
- Van Gijn-Grosvenor, E. L., & Huisman, P. (2020). A sense of belonging among Australian university students. *Higher Education Research & Development, 39*(2), 376–389. <https://doi.org/10.1080/07294360.2019.1666256>
- Watson, S., Miller, T., Davis, L., & Carter, P. (2010). Teachers' perceptions of the effective teacher. *Research in the Schools, 17*(2), 11–22. <https://psycnet.apa.org/record/2011-23902-005>
- Wilson, D., Jones, D., Bocell, F., Crawford, J., Kim, M. J., Veilleux, N., Floyd-Smith, T., Bates, R., & Plett, M. (2015). Belonging and academic engagement among undergraduate STEM

- students: A multi-institutional study. *Research in Higher Education*, 56(0), 750–776. <https://doi.org/10.1007/s11162-015-9367-x>
- Yau, A. H. Y., Yeung, M. W. L., & Lee, C. Y. P. (2022). A co-orientation analysis of teachers' and students' perceptions of online teaching and learning in Hong Kong higher education during the COVID-19 pandemic. *Studies in Educational Evaluation*, 72(0), 101–128. <https://doi.org/10.1016/j.stueduc.2022.101128>
- Yeigh, T., Handayani, S., Peddell, L., & Lee, M. (2023). Using self-determined learning to improve teacher professional learning. In David Lynch, Tony Yeigh, & Wendy Boyd (Eds.), *Re-imagining teaching improvement: From early childhood to university*. Singapore: Springer.
- Zengilowski, A., Lee, J., Gaines, R. E., Park, H., Choi, E., & Schallert, D. L. (2023). The collective classroom “we”: The role of students' sense of belonging on their affective, cognitive, and discourse experiences of online and face-to-face discussions. *Linguistics and Education*, 73, 101142. <http://dx.doi.org/10.1016/j.linged.2022.101142>

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