“We Have Our Own Belonging”: A Qualitative Investigation of Postsecondary Students' Sense of Belonging in Online Course Formats

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Abstract

As courses and degree programs delivered through distance, remote, and virtual learning formats expand, higher education institutions are faced with the challenge of engaging fully online students to ensure retention and high achievement. In traditional, face-to-face course formats, postsecondary students’ sense of belonging has been shown to effectively address these issues. Yet, research on sense of belonging in fully online courses is limited. The current study is a qualitative investigation of postsecondary students’ sense of belonging, conducted at a large university in southeastern United States. Several themes emerged from interviews suggesting that a sense of belonging can be fostered through substantial relationships, supportive interactions, and establishing affiliations with others in their courses. Unique needs of fully online students, differences from their fully face-to-face peers, and implications for instruction are discussed. Findings from the study extend the literature on belonging, establish a foundation for empirical studies of this construct in online courses, and inform how higher education institutions prepare inclusive, rigorous learning across formats for all postsecondary students.

Key words: sense of belonging, online learning, postsecondary students, qualitative

Introduction

Higher education institutions have increasingly expanded courses and degree programs into fully online formats as an alternative or in extension to face-to-face education. Allen and Seaman (2013) reported that in 2002, online education was part of long-term plans for only less than 50% of higher education institutions, but by 2013 this percentage rose closer to 70% with steady predicted growth. The COVID-19 pandemic has amplified this trajectory, with implications for student achievement, well-being, and instructional design and delivery (Salmi, 2020). Students in fully online courses and programs are similarly, if not more, susceptible to issues typically associated with traditional, face-to-face education (e.g., attrition, low retention rates). As such, instructors are faced with the challenges of increasing student persistence and achievement in both modalities. Postsecondary students' sense of belonging (or simply, belonging) has been empirically and conceptually evidenced to improve students' experiences and improve persistence and achievement (Hausmann et al., 2007; Hurtado & Carter, 1997). However, research on these constructs in fully online courses is limited. The aim of the current study is to address the following research questions:

- Research Question 1: How do postsecondary students enrolled in fully online courses describe belonging differently from peers in fully face-to-face courses?
- Research Question 2: How can postsecondary students' belonging be fostered in fully online courses?

For the current study, online students were postsecondary students who exclusively learned attending online classes away from the physical campus of the university. Fully face-to-face students were postsecondary students who exclusively attended classes on the physical university campus. Findings from this study expand knowledge about the construct of belonging, highlight the nuanced differences that manifest in online courses, and identify implications for online and face-to-face higher education.

Review of Literature

The conceptualization of belonging has evolved from a construct founded on human motivation theory (Maslow, 1943) to a key metric of student success associated with persistence, retention, and graduation (Tinto, 2017). The *belongingness hypothesis* (Baumeister & Leary, 1995) proposes that a need for belonging can be satisfied by participating in lasting interpersonal relationships based on shared regard and concern. More recently, Walton and Brady (2017) broadly characterized belonging as a "feeling of being accepted, included, respected in, and contributing to a setting" (p. 272). Goodenow (1993) initially explored belonging in the education context, characterizing belonging as

> "the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment" (p. 80).

Despite the evolving definition, an underlying relational experience is described by scholars when conceptualizing students' belonging at different developmental stages and educational levels (e.g., Goodenow, 1993; Lewis et al., 2019). Across educational contexts, belonging has been associated with well-being, achievement, and general student success (e.g., Cockshaw & Shochet, 2010; Francis et al., 2019; Gunn et al., 2012).

Differences in belonging experiences have been identified based on student demographic characteristics, such as gender, ethnicity, dis/ability, and socio-economic groups (Hussain & Jones, 2019; Teng et al., 2020; Vaccaro & Newman, 2016). This extends to several non-traditional course formats such as hybrid, distance, and online courses (Allen & Seaman, 2013; Decker & Beltran, 2016). Although the literature focusing on online instruction is limited, several unique aspects of this modality have been identified. O'Shea et al. (2015) reported that online learners are particularly susceptible to less social and academic engagement since non-traditional course offerings typically receive less institutional support and resources. Additionally, Peacock and Cowan (2018) highlighted for online instructors that, before attending to academic duties,

> "learners need to develop strong feelings of being welcomed, accepted, needed, and valued" (p. 74).

Exploring social-emotional connections, Delahunty et al. (2014) recognized that learners in online courses deliberately sought opportunities to interact with others beyond basic engagement to compensate for lack of physical presence.

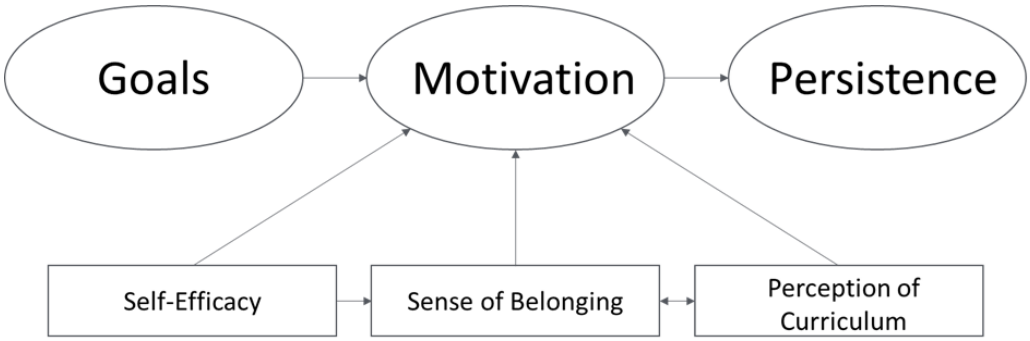
Extant research studies hint at the importance of belonging in non-traditional course formats, but researchers have not directly investigated this phenomenon in the fully online format. To provide further insight into opportunities to boost belonging, our study sought to extend the literature by contributing detailed understanding of postsecondary students' belonging, specifically in fully online courses and in comparison, to the experience of their fully face-to-face peers.

Conceptual Framework

The current study is situated within a conceptual model that captures belonging among interrelated mechanisms that influence student persistence. Tinto's (1975) original retention framework centered on institutional influences to address retention. However, an updated model in 2017 incorporated postsecondary students' motivation (see Figure 1). This latter model proposes students' self-efficacy, belonging, and perceptions of curriculum are motivating factors when pursuing learning goals such as acquiring knowledge and skills, completing courses, and earning academic degrees. As contextualized in this model and supported by the literature (Slaten et al., 2016; Thomas et al., 2014), the addition of student motivation, specifically belonging, brings attention to the relationships and interactions students experience during their academic career. Among the three motivating factors in Tinto's model of retention, our study sought to understand student belonging and the instructional supports that can foster belonging within fully online courses.

Figure 1

Tinto's (2017) Model of Student Motivation and Persistence



Note. Tinto, V. (2017). Through the eyes of students. *Journal of College Student Retention*, *19*, 254–269. https://doi.org/10.1177/1521025115621917

Method

Data for the current study were collected at a university in the Southeastern United States invested in improving student retention. As a large, land-grant, public university, the administrators were interested in further expanding online course offerings through a deliberately scaled extension of the in-person programs and courses offered across the colleges at the university. Administrators at the institution identified belonging as a part of a strategic plan to increase retention rates. As a result of this expansion and focus on student belonging, a project to measure belonging across different contexts was launched. The data from our study are embedded within that project, where the researchers collected qualitatively through individual or group interviews in partnership with student life and online learning units. Appreciative Inquiry (AI) (Watkins & Cooperrider, 2000), is an approach to organizational change that is structured to

> "discover what is working particularly well and then to envision what it might be like if 'the best of what is' occurred more frequently" (Preskill & Catsambas, 2006, p. 2).

Since this approach is a collaborative and holistic approach to identifying opportunities for improvement (Lehner & Hight, 2006), we designed our qualitative focus group protocol to align with the AI principles. With a dual purpose of collecting information for the current study and informing the host university of possible improvements as the online program expands, AI was an appropriate

> "means for addressing issues, challenges, changes, and concerns of an organization in ways that build on the successful, effective, and energizing experiences of its members" (Preskill & Catsambas, 2006, p. 2).

In this strengths-based focus group approach, researchers facilitated discussions on participants' experiences of belonging; aspects of belonging that participants valued in online settings; and their vision for how to improve belonging environments in online settings. The data were analyzed using an iterative process to generate themes from the individual or group interviews.

Course and Participant Sampling

In partnership with administrators at the institution, we recruited participants who supported participant outreach and assisted in developing the sampling frame and plan. With information from the institution, eligible courses were selected, which included only active courses and excluded hybrid, experiential learning (e.g., internships), study abroad, thesis/dissertation writing, and compressed video courses. Only courses that had at least five students were included. Online courses were then matched with face-to-face courses by course characteristics, based on class (e.g., Math 109 online and Math 109 face-to-face), level (e.g., 100- and 200-level courses), department, and college.

Once courses were selected, eligible participants were determined to be (a) currently enrolled in programs at the institution that were conducted either fully (100% of instruction) online (online students) or fully in-person and on campus (face-to-face students) and (b) 18 years of age or older were invited to participate in individual or group interviews. Online students were interviewed separately from face-to-face students. It should be noted that most participants were females, graduate students, and students that self-identify 'White or Caucasian' as their racial/ethnic background. Participant demographic characteristics are summarized in Table 1.

Table 1

Demographic Characteristics of Participants by Course Format

Characteristic	Online		Face-to-Face		Total	
	n	%	*n*	%	*N*	%
Course format	14	58	10	42	24	100
Degree level						
Graduate	13	93	6	60	19	79
Undergraduate	1	7	4	40	5	21
Gender						
Female	11	79	4	40	15	63
Male	3	21	6	60	9	38
Race/Ethnicity						
African American or Black	0	0	1	10	1	4
Asian	1	7	1	10	2	8
Hispanic or Latino	1	7	1	10	2	8
Multi-race	0	0	1	10	1	4
White or Caucasian	8	57	4	40	12	50
Did not report	4	29	2	20	6	25

Table 1 Continued

Demographic Characteristics of Participants by Course Format

Characteristic	Online		Face-to-Face		Total	
	n	%	*n*	%	*N*	%

College						
Agriculture	1	7	0	0	1	4
Arts & Sciences	1	7	4	40	5	21
Business	1	7	1	10	2	8
Communications	3	21	0	0	3	13
Education	2	14	2	20	4	17
Engineering	0	0	1	10	1	4
Graduate School	1	7	0	0	1	4
Medicine	0	0	1	10	1	4
Public Health	1	7	0	0	1	4
Social Work	3	21	1	10	4	17

To manage participant interest and availability, we conducted multiple interview sessions from Fall 2019 through Spring 2020 (see Table 2). Sessions at both the end of the Fall semester and beginning of the Spring semester were conducted to mitigate responses influenced by temporal factors typically associated with academic semesters (e.g., exam period, availability).

Table 2

Participants per Interview Session

Session	Semester	Month	Online	Face-to-Face	Total
1	Fall	December	2	1	3
2	Spring	January	2	8	8
3	Spring	January	7	1	8
4[a]	Spring	January	3	0	3

Note. Multiple sessions were conducted during the Spring semester to ensure saturation of responses.

[a]An additional group interview was conducted for the third session of online participants.

Data Collection

We contacted eligible participants who fit the selection criteria via email and provided an opportunity to ask questions about our study and schedule participation in a data collection session. Email rosters from eligible courses that shared matched characteristics were provided by the administrators at the institution. Email invitations were used to recruit participants that reflected the student population at the institution who were interested in discussing their experiences in being interviewed. We designed the interviews as 45- to 60-minute semi-structured sessions. For online students, group interviews were conducted through Zoom, whereas a meeting room on the university campus was used to conduct individual or group interviews with face-to-face students. Students only appeared in the participant pool once.

Qualitative Protocol

To gather detailed information about belonging, we developed a semi-structured interview protocol. The protocol was derived from a review of belonging literature and in

consultation with faculty members and graduate students familiar with AI. The semi-structured format allowed flexibility to ask follow-up questions.

Study participants were asked about experiences in their respective course format. Participants were prompted to (a) make meaning of their experiences in their course by articulating a definition for belonging and (b) share a specific instance or moment of belonging associated with that definition. As a follow up to the main questions, participants were asked to elaborate further by identifying factors that may have influenced their perceptions. Participants were asked about (c) un/stable relationships and positive/negative interactions associated with manifestations of belonging. As an opportunity to highlight existing practices in their courses at the institution, participants were also asked to (d) detail any actions that could improve students' belonging at both the course and university level.

Data Analysis

To determine how online students described their belonging differently from face-to-face students, we collected and transcribed interview responses. Exploring the experiences of face-to-face and online learners facilitated our understanding of learning formats and highlighted the unique aspects of online learning. A total of 211 segments of data from responses between online students and face-to-face students were coded. Specifically, 133 segments were coded from online student sessions, and 78 segments from face-to-face student sessions.

We iteratively analyzed all segments in pairs (first and second authors; first and fourth authors) using in vivo coding (see Saladaña, 2016) to develop code clusters based on common words used by participants and corresponding definitions that reflected participant responses. These code clusters were recursively analyzed separately for each course delivery format and used to develop themes. Themes and descriptions that emerged from participant responses are summarized in Table 3.

Table 3

Emergent Themes and Descriptions by Course Format

Theme	Description	Online (*n* = 133)		Face-to-Face (*n* = 78)		Difference		Ratio
		n	%	*n*	%	*n*	%	O:F
Developing substantial relationships	Belonging can be developed through meaningful relationships that are nurtured differently for online students.	73	55	42	53.9	31	1.1	73:42
Providing different supports to meet online student needs	Social and academic supports to foster belonging for online students were different from their face-to-face peers due to specific needs related to the course delivery format.	30	24.1	19	24.3	13	-0.2	30:19
Sustaining affiliation	Social networks established in fully online courses evolve as collective experiences occur, boosting belonging	25	18.8	14	18.0	11	0.8	25:14

Note. O = Online responses; F = Face-to-face responses; Negative values indicate greater frequency or percentage in responses from Face-to-Face participants. Count of responses reflect unique statements made by respondents in each group, not count of participants contributing to the theme.

We conducted recursive analysis to reach acceptable interrater agreement between pairs who coded the same set of responses. We calculated interrater agreement as a percentage of codes that were assigned the same between pairs of raters. The coding results and participant responses were analyzed as a complete body of responses, as well as disaggregated by course delivery format to induce patterns of similarity and differences from the data collected from the two groups of student participants. Interrater agreement for coding responses from online and face-to-face students was 85% and 81%, respectively, meeting the threshold of over 80% on 95% of data (Miles et al., 2019).

To ensure trustworthiness, we engaged in reflexivity through continuous cognitive awareness of personal biases and assumptions about participants' experiences that could influence the iterative data analysis and subsequent interpretation of findings (Charmaz, 2014). We practiced reflexivity from the development of the protocol, through each round of data analysis, and finalizing conclusions, to remain cognizant of how our researcher identities and experiences shaped not only the methodology, but the entire research process.

Results

Results suggest that students in online courses share similar descriptions of belonging with their peers enrolled in face-to-face courses. However, the frequencies of codes varied between the two course formats, suggesting that nuanced differences in perceptions are present. Holistically considering the responses, as well as a close analysis of the differences in percentages and resulting ratios of the responses coded by our research team, several subthemes emerged from the postsecondary students articulating their experiences in forming, developing, and nurturing belonging with others in either fully online or face-to-face courses. Table 3 summarizes the results and presents the differences in percentages based on the frequency within the theme, as well as number of instances a code was assigned to a response. Additionally, ratios of the number of instances coded within the theme are also provided to capture patterns that emerged from the data.

Theme 1: Developing Substantial Relationships

Online students consistently reported that belonging in their course can be fostered through the development of meaningful relationships with other students and the course instructor. The theme regarding meaningful relationships emerged from comments that emphasized the importance of relationships to others. Responses from online students suggested that relationships develop from interpersonal interactions (i.e., engagement and shared interests) with others in the course and from feeling that, despite the potential for tension or conflict, individual contributions to be building relationships were valued and that expectations of each other can evolve. Other key aspects of this theme included deepened relationships, active engagement with others in their course, and feeling like a valued contributor in the course. This theme was applicable to responses heard across both groups, however, the instances, or frequency, at which responses informed this theme differed between online and face-to-face students. More online students endorsed this theme, evidenced by a higher number of comments than face-to-face students. This theme captures how relationships develop, as well as the influence of relationships, to foster belonging differently in online versus face-to-face courses.

Developing Relationships in Online Courses

A major facet of developing substantial relationships was highlighted by responses from online students and alluded to the relationships that informed their belonging based on openness to others in their course and finding commonalities with one another. An online student said that “knowing the other people that you're with...having inside jokes or a kind of sense of a team” with others helped nurture meaningful bonds, building belonging. Another online student identified that

> “a combination of the content and the interactions with the other students and the professor [sic] combined really make me feel tethered, and with a sense of belonging.”

This statement summarized the experience of being open to virtual interactions with others, despite the online setting. Another online student expressed that developing meaningful interpersonal relationships can start small, stating

> "it would be nice to know what students are in that class. At least maybe have the email or their student email or something to be able to reach out to them...to have some kind of connection."

Students' responses reflect that, for students who were learning online, relationships were initially developed through an interest in others who had shared experiences.

Developing Relationships in Face-to-Face Courses

Face-to-face students had a similar but different approach to developing interpersonal relationships. One face-to-face student stated "interaction between the students and teachers helped a lot", to describe how engaging actively and seeking interactions with peers and/or instructors benefits their belonging. Responses suggested that interactions may need to be structured and intentional so that interpersonal exchanges can successfully boost belonging. For example, a face-to-face student expressed the importance of in-person interactions with their peers and/or instructors but needed "some kind of activity to get to know my classmates...something that helps" the development of relationships to foster belonging in the face-to-face course. Another face-to-face student mentioned that they "appreciate when professors go the extra mile, reach out and send emails" and further report that

> "there have been times where I've missed class and professors have emailed me, like, 'Hey, I noticed you were quiet in class. Is everything okay?' that makes me feel cared for and contributes to that sense of belonging."

Comments from face-to-face students suggested that substantial relationships developed through intentional interactions in the learning experience can foster belonging. While online and face-to-face students both mentioned a shared interest in a topic or in each other as important to building relationships, even more responses emphasized the importance of interactions, the data indicate that relationships for face-to-face students develop through in-person, intentionally structured interactions.

Developing Substantial Student Relationships Across Course Delivery Formats

Although responses indicated divergent ways to foster belonging, postsecondary students shared similar responses regarding their collective experience across course formats. One online student captured the importance of the shared experience by commenting "going through struggles together…can accomplish more... [rather than] just doing it alone" in their online course. Another face-to-face student, on the other hand, described that belonging was nurtured through individual interactions, commenting that their belonging was "on the fundamental level, not being ignored." However, another student response from both course formats alluded to implicit or explicit assurance from peers and/or instructors that it is safe to be themselves, despite potential failures, mistakes, and other opportunities for judgment and negative criticism to affirm their

belonging. These types of affirmations were frequently mentioned as a foundation to relationships that nurture belonging, not just between students from both course formats but with instructors as well.

Theme 2: Providing Different Supports to Meet Online Student Needs

In addition to developing substantial relationships, online students referenced social and academic support provided by peers and instructors as a manifestation of belonging in their courses. Percentages of comments informing this theme were almost equal across online and face-to-face students (24.1% and 24.3% respectively). They talked about needs and support in similar ways across both settings. For example, an online student mentioned that

> "being able to voice your opinions and not feel like [you're] going to get any sort of backlash or feeling uncomfortable"

fostered belonging with others in the course. Similarly, a face-to-face student mentioned that when students "can openly communicate and not feel like you're going to be rejected," belonging can be established within the course. Needs and supports required to foster belonging for online students were different from their peers in face-to-face courses. Specifically, responses from online students indicate that intentional support may have to be provided to learn in a non-traditional course format.

Student Needs in the Online Course Format

Online students had a greater ratio of comments (17:9) regarding support related to the remote and virtual course delivery format in comparison to their face-to-face peers in the traditional format. For example, an online student mentioned that online instructors who "make it a point to have a personal zoom chat with every single student" contributed to their belonging. Another online student commented that "office hours, but a Skype or Zoom session that would help with putting a name to the face," foster belonging in the online format. These supports are similar to what instructors of face-to-face courses provide. However, these comments suggest that for online students, intentionally facilitating online interactions boosts belonging.

In addition to intentional support from instructors, online students also mentioned support from other students in their course. As an online student mentioned,

> "…you're in it together. You're not that lone person out there that's stressed at work worrying about this."

This statement indicated that online students commonly juggle employment in addition to coursework. This student explained that having an available network to allowed online students to

> "reach out and have conversations with and bounce ideas off...[to] feel like a stronger student"

despite being distanced from each other. That student described the reciprocal support: “I have someone else I can lean on, and I can also be there for them to lean on me.”

Although online students described feeling supported contributed to their belonging, needs varied within the course. An online student described different needs, stating

> “depending on the type of person that you are, some people need more guidance and some people don't.”

The range of instructional design features available in online course delivery formats may allow for differentiation to occur more conveniently than in face-to-face course formats. For instance, an online student recognized

> “online might be more of an avenue for people who don't want to speak up as much or talk more,”

which benefits students who may find the face-to-face format intimidating. Unique to the online course delivery format, online students mentioned discussion boards, breakout sessions for small groups, chat functions for sidebar conversations, and visual assistance such as closed captioning, transcripts, and recordings as particularly helpful to meeting their specific needs. These tools were mentioned as student-centered supports that allowed students to be vulnerable among their peers and instructor, which boosted belonging within the online course.

Providing Student-Centered Instructional Supports to Boost Online Student Belonging
In general, online students reported feeling a sense of belonging in courses intentionally designed to authentically meet their needs. A student enrolled in a face-to-face course mentioned that online instructional practices are accessed even by face-to-face instructors. This student stated that, as an example,

> “some of my teachers have offered different methods of learning...not everybody learns the same way so I know some of my professors will hand out hard copies of notes that you can actually fill in or you can do an online version and take your own notes or just follow the slides or watch videos.”

By meeting student needs, courses designed to be responsive or compatible can boost belonging among other students within the course.

Theme 3: Sustaining Affiliation

The first two themes presented in this study highlight that belonging is fostered in online courses when students develop relationships with each other and when their needs in this unique setting are addressed. In addition, a third theme emerged from participant responses that relationships and satisfied needs are just a foundation for belonging. For online students that express a feeling of belonging to others in their course, a common theme reflects that their affiliation with the course and their peers is sustained throughout the course. Affiliation, or association with the course and students in the course, serves

as the final theme that captures the social networks that are established in online courses and how students' perceptions of the academic community evolve as collective experiences occur, boosting belonging. Online and face-to-face students provided a similar percentage of comments to this theme (18.8% and 18.0%, respectively). Comments from both online and face-to-face students discussed affiliation at the course level, as well as the institutional level. However, online students mentioned affiliation to others at a higher ratio (25:14), suggesting a nuanced difference in the influence that affiliation may have on belonging in non-traditional formats.

Although responses regarding affiliation differed based on course format, it is evident from the responses that the opportunities to develop and sustain affiliation in online courses are available but contribute differently to an online students' belonging. An online student stated that "a sense of camaraderie with peers, but also with the professor" can be created through shared learning experiences designed for the online course delivery format. Sustained affiliation for online students is informed

> "by being part of an affinity group where you all are...working towards a common goal and having similar discussions"

despite being fostered differently than traditional, face-to-face course formats.
Online students mentioned that affiliation is established differently, with communities evolving differently for online students. Comments from online students alluded to differences in how their affiliation to the course, as well as the institution influenced their belonging. One online student shared that

> "from the university standpoint, as far as the online classes go, we're all coming from different backgrounds, but we're coming together to learn a certain program."

Another student within an online course shared that a

> "common mission, everybody experiencing something within a certain community...this is going to be more challenging as an online student to really feel a sense of belonging"

within the course. Another online student alluded to mere affiliation to a course offered by a university not contributing to belonging, stating

> "we have families and jobs and other commitments. So, it's not as big a deal where I think most people are finding their sense of belonging in other places, like work or family, and not necessarily looking for it from school."

Several online students recommended ways that they hoped collective interactions and experiences were fostered so that they can develop an affiliation with others in the course.

Other responses alluded to affiliation beyond the course, reflecting on experiences at the program level. Several online students mentioned ways programs can establish and sustain affiliation. These students shared that “some sort of welcome packet that is for online [students] like freshmen” and “our own newsletter that was designed for online students,” as well as “departmental mass emails just to be in the know of what's going on...any events, things like that” are outreach solutions that can help online students improve expectations of their courses and develop a sustained affiliation to positively influence their belonging.

Belonging to a trusted community during a transformational experience, such as pursuing higher education, can be beneficial and in some cases, directly influential on success. However, the experience for remote and virtual learning communities may be different from traditional formats. As a face-to-face student enrolled in a face-to-face course declared,

> “there's really no more sense of belonging than when we keep each other on track with schoolwork, as well as being there for each other…helping me navigate through the course,”

which can be typical of traditional formats.

Sustaining Affiliation Differently in Face-to-Face Courses

Online students did not mention certain conveniences when establishing and sustaining affiliation with others that their face-to-face peer highlighted. For example, a face-to-face student responded that “You don't know what it is, but you would know it when you see it,” alluding to interactions between students that boost–belonging - an opportunity to observe the class culture that online course formats might not offer fully online students. Another face-to-face student spoke to this observation by stating

> “there's a place you can be yourself and feel safe to be yourself in the classroom. You can just say something in the classroom, and also you can also choose not to say something. No one will judge you.”

Furthermore, they have

> “never felt that it was forced. If anyone wants to say anything, they can. It was never required to divulge your deepest secrets”

to characterize the culture within this face-to-face course. This aspect of community was best summarized by a face-to-face student who described the opportunity face-to-face courses provide for in-person groups. This student mentioned

> “It's more active, more people communicating, interpersonally, because they think that not only provides a sense of not only learning better because you're paying attention to it more [but] you're also kind of forming more sense of

> community...feeling like every class you went to, you felt some connection with other people in your class overall."

Students in on-campus courses found themselves benefitting from the physical space and immediate interactions that are expected from face-to-face course formats. By sharing in these collective experiences and instructional activities that facilitate working towards collective goals, face-to-face students can more conveniently develop belonging, whereas online students have to develop their affiliation despite the distanced, remote, and virtual environment of the online course format.

Discussion

Tinto's (2017) model specifically highlights the role of belonging—a key construct to ensure student fit with others in an institution—and identified as critical to retention. In our study, we present information that can provide further context into postsecondary students' belonging aligned with the extant literature (e.g., Freeman et al., 2007; Hurtado & Carter, 1997; Slaten et al., 2016). In addition, results from the sessions for online students extends the current understanding of how the online course format uniquely influences sense of belonging (e.g., Allen & Seaman, 2013; Peacock & Cowan, 2018; O'Shea et al., 2015). Specifically, our study presents novel contributions by investigating belonging across modalities, to understand how belonging is similar but also nuanced differences between what fosters and thwarts belonging in online settings. Understanding necessary factors to foster belonging is critical to student motivation and, ultimately, persistence through postsecondary education (Tinto, 2017).

Our study adds to critical dialogue about how to help students connect with each other. For instance, Tinto (2017) outlined the importance of connection to curriculum as having a reciprocal influence on students' sense of belonging. Students in the current study endorsed how sharing common interests and having opportunities for meaningful dialogue and chances to interact with both professors and classmates was critical to feeling like they belong. Instructors could leverage the importance of curriculum to create chances for students to build shared interests in course content in order to improve sense of belonging.

Findings from both online and face-to-face students suggest postsecondary students' belonging can be commonly defined as perceptions of affirming interpersonal relationships among students informed by interactions in a common, established learning experience. However, disaggregated results suggest that while a common definition can be shared, student needs, supports, relationships, and interactions differ based on course format. Experiences shared by participants from online courses aligned with Maslow's (1943) proposal that sense of belonging was defined by more basic needs, such as the security of the course (e.g., supportive academic environment, clear curricular trajectory), whereas face-to-face students' responses suggested sense of belonging in face-to-face courses was defined by the quality of interactions (e.g., feeling valued, being comfortable to make mistakes, growing relationships through common experiences) as hypothesized by Baumeister and Leary (1995) and Goodenow (1993).

The diverging definitions not only reflect differences in experiences of belonging but highlight the different contributing factors to postsecondary students' belonging to online courses. Online students are particularly susceptible to being disadvantaged since online education programs typically receive less support and resources (e.g., O'Shea et al., 2015; Peacock & Cowan, 2018), As identified through the study, online students prioritize the structure and resources available in their courses differently than their face-to-face peers.

Students in this study indicating both relationships and interactions contributed to their belonging, whether in an online or a face-to-face course. The key to these impacts, however, was structure and intentionality. As interactions and relationships change over time—whether for better or worse—participants indicate that expectations change as experiences with individuals and group experiences provide more information about how they should perceive belonging within their course. By reflecting on the combination of their relationships and interactions, postsecondary students report that finding a social network or broad community that reflects a part of their identity establishes an affiliation that boosts their belonging. Additionally, a student's belonging can extend beyond their time within a course, having lasting effects on their perceptions of their identity and their program. Tinto's model presents a sense of belonging as one of three variables that influence students' decisions to persist in their academic programs. The other variables (i.e., self-efficacy and perceptions of curriculum) should be explored for similar structure and intentionality in the online learning context to identify opportunities to engage and encourage students toward degree completion.

Furthermore, the intersectionality of identities complicates how belonging is fostered (Hernández et al., 2017; Lewis et al., 2019) as the move to more online learning opportunities in higher education rapidly increases. These gaps are magnified for students from marginalized and minoritized groups that are already expected to have lower belonging (Stebleton et al., 2014; Vaccaro & Newman, 2016). Online, distance, remote, and virtual learning increases the potential of marginalizing students from already vulnerable demographic groups. In addition, rapidly increasing effort to move higher education into online learning formats further complicates how belonging is fostered. Students from non-traditional age groups, various geographic locations, and part/full-time employment status may pursue online learning opportunities but could be overlooked in the design and development of online courses. These important issues of equity related to sense of belonging due to the educational environment, specifically the online course format should be addressed with intention. With the 2020 global pandemic and evolving socio-economic issues moving learning rapidly into online settings, these inequalities require more immediate attention.

Although there has been a vast amount of work that addresses belonging in a variety of contexts, our study uniquely addresses a timely and relevant issue that has been exacerbated by current events: online learning as the future of higher education. The onset of emergency remote teaching during the Spring of 2020 forced educational leaders at all levels to temporarily move instruction online.

As the results of this study suggest, there are deviations with approaches to defining and developing postsecondary students' belonging. In a traditional, face-to-face format, instructors can rely on interpersonal interactions that occur within the proximity of physical space. However, online students have provided responses that emphasize components of instructional design that are often overlooked. For example, responses from online students emphasized what previous research (e.g., Peacock & Cowan, 2018) has identified—a desire to belong before attending to academic duties in their online courses. This is a factor that is inherent to traditional, face-to-face courses due to the proximity of physical attendance, whereas online students do not convene in a physical space in their courses and at times complete a course asynchronously. Delahunty et al. (2014) stated that online students deliberately seek opportunities to interact with others beyond basic engagement to compensate for a lack of physical presence.

Belonging has been shown to influence student academic motivation and social connectedness (e.g., Francis et al., 2019), which may explain both online and face-to-face students identifying the need to feel supported as a common influence on their belonging. Given that the absence of a belonging has been associated with loneliness, depression, and disengagement, (e.g., Cockshaw & Shochet, 2010; Gunn et al., 2012), it is expected that students across both formats define their belonging partly on how authentically welcomed they are to the course and the genuine interactions they experience. However, O'Shea et al. (2015) reported that online learners typically define themselves "as 'second-class citizens' or 'just an online student'" (p. 55), which could support the large percentage of fully online responses alluding to their needs and relationships as part of an online learning experience. Unintentionally, online learning may isolate and stifle the social and academic experience of vulnerable students (e.g., Hewson, 2018). Although face-to-face courses may elicit similar psychological reactions from face-to-face students as evidenced by the responses from the individual or group interviews, the variability between the two course formats might be more nuanced than currently understood.

Implications for Practice

Students' belonging has been empirically and conceptually linked to student success (e.g., Tinto, 2017; Walton & Brady, 2017). With only a limited amount of research exploring the online learning experience (e.g., O'Shea et al., 2015, Thomas et al., 2014), more research is needed to understand how the resources and supports, interaction, and relationships that contribute to students' sense of belonging could be measured and continuously improved. The findings of our study indicate three major themes that suggest implications to improve practice: 1) developing relationships between instructor and students and peer-to-peer, 2) providing support to meet student needs including instructional and personal support, and 3) sustaining affiliation through both connection and contact.

Implications for Relationship Development (Theme 1)

In developing relationships between instructor and students it is recommended that instructors take the time to get to know their students personally. This can be done through established, required office hours or required one on one appointments to discuss

assignments. Ice breaker activities in the online or face-to-face classroom can also establish relationships between instructor and students by getting to know one another through fun or engaging activities. Peer-to-peer relationships can be fostered through establishing formal connections through required group work on specific projects, breakout discussion groups or discussion board threads, as well as having students share email and phone numbers so that students may help one another for moral support or simply when needing clarification on an assignment or group project. It is also a good idea to establish a chat room or separate discussion board in the online environment for informal chat or sharing of ideas or questions between peers.

Implications for Student Support (Theme 2)
The second theme, providing support to meet student needs can be considered at both the instructional level and personal level. At the instructional level support can be provided through one-on-one advising, regular email outreach, providing regular and specific feedback, and establishing office hours as well as offering one on one individualized appointments. Technical support should also be easily accessed through whatever learning platform is used. Providing support at the personal level can come as a byproduct of regular interaction between students, their peers, and the course instructor. Establishing a community of caring from the start of class will go a long way toward addressing students' needs to feel like they belong and are cared about at a personal level.

Implications for Sustaining Affiliation (Theme 3)
Affiliation, the third theme, indicates that students need and want both regular connection and contact. This suggests that establishing connections early in the course, and then maintaining them throughout the course, is important to promoting a sense of belonging in the environment. This connection and contact may be fostered through formal, established connections among peers such as sharing email addresses and phone numbers and with the instructor through required one on one virtual or phone meetings. Affiliation may also be supported through required group work or projects that indicate ongoing regular interaction.

The online environment demands different instructional design and pedagogical actions by the instructor. Online instructors must be flexible and keep flexible virtual office hours. Using an online scheduling system might lessen the organizational burden on both parties. As noted in the themes, instructors must also be versed in instructional tools that build collaboration such as breakout rooms, collaborative documents, and video threads.

Just as in a traditional brick and mortar classroom, but to a greater degree, relationships must be proactively nurtured with students in a virtual classroom. Instructors must find ways to meaningfully foster interpersonal relationships and actively engage the students within the course. This notion of relationship building is extended to the institution as well. Universities must find ways to proactively engage online students, be that through social media or virtual social events.

Limitations

Firstly, the results are sample dependent, limited in both size and diversity. In the current study, we found that online students expressed this was one of the first opportunities to provide feedback on their experience, which may account for the greater number of responses from this group, in comparison to their face-to-face peers who may be frequently surveyed or have experiences that are more commonly understood. In addition, online students should be disaggregated based on the meeting format since synchronous and asynchronous experiences allow for different opportunities to interact, potentially influencing belonging developed within the course differently.

Secondly, the sample was a convenient sample and may not have captured the variety of experiences that occur. The sample should be expanded to understand the experience of diverse student populations (e.g., Hurtado & Carter, 1997; Strayhorn, 2012; Vaccaro & Newman, 2016). Specifically, during the recruitment process, we were unable to recruit male participants who identified as Black or Latino. Additional characteristics of online students, such as age groups, employment status, geographic proximity to the institution, and credit hours per semester may be important to explore. For students in outlier groups based on these characteristics, their sense of belonging may be sourced from aspects of their identities that are not less proximal to their academic courses.

As online courses and programs expand to include more undergraduate students, experiences should be collected from both graduate and undergraduate students, since this sample was majority graduate students due to availability of current fully online courses and programs offered. Although campus wide efforts to increase belonging may be geared towards the entire student population, researchers recommend that minoritized and marginalized students require closer attention due to their susceptibility to drop out, fail, or not even begin college at all (e.g., Gummadam et al., 2016; Museus et al., 2018). Perhaps additional individual or group interviews should be offered to expand data collection until a more saturated body of responses are collected. Research conducted by Lewis et al. (2019) on sense of belonging and microaggressions experienced at a predominantly White institution demonstrates the profound need for further research of this construct, should practitioners and researchers alike truly hope to improve retention and graduation for marginalized students.

A final limitation is that our study occurred prior to the institution's transition to move to completely remote instruction in response to a global pandemic. As a result of these global shifts in learning modalities, students may have adjusted their perceptions since the collection of the data due to the emergency change in course format. It is uncertain whether there was an influence on how students' belonging was addressed after an extended period of remote learning. However, the comments from students about how their belonging to others in their course was collected before the university response to move all instruction to an online format, so the sample-specific findings were likely untainted by the 2020 global pandemic. After a post-pandemic world where online course formats became the norm, the data should be collected during a time when instruction is delivered without interruption.

Conclusion

Strayhorn (2012) provided insight into the persistence of belonging as a construct that cannot be ignored when inquiring about the postsecondary student experience. Strayhorn (2012) stated, “deprivation of belonging in college prevents achievement and well-being. On the other hand, satisfaction of college students’ sense of belonging is key to educational success” (p. 11). Because of the novelty of online courses and programs, the development of a more precise definition should be seriously considered. Our findings support the domain-specificity of the course format (e.g., online or face-to-face) as an important consideration to ensure reliable qualitative or quantitative measurement that can provide appropriate interpretations for program improvement or intervention. As the literature on belonging is expanded, specifically in non-traditional formats in higher education, institutions may consider approaches to measuring belonging and determine the best approach to interventions and programs based on purposefully collected data.

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