Connecting Online Graduate Students to the University Community

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Keywords: sense of community, online learning, graduate students, sense of belonging

INTRODUCTION

Establishing a sense of community is important for student success in online learning environments (Skelcher, Yang, Trespalacios, & Snelson, 2020). This study's purpose was to understand better how to facilitate a sense of belonging among students enrolled in an institution's online graduate programs. Findings seek to understand influential elements in creating a sense of community that are important to online graduate students, to categorize student segments based on interest in community membership, and to devise strategies for building community among online graduate students. Research questions considered include:

- 1. What life circumstances are characteristic of the online graduate student population?
- 2. What is their sense of community in relation to the university?
- 3. What is their sense of community in relation to their academic program?
- 4. What types of programming are desired by the online graduate student population in order to increase the sense of community?

LITERATURE REVIEW

Belongingness among college students has been a long-studied phenomenon described primarily as a student's sense of value and importance to the classroom, as well as feeling included in the academic community (Goodenow, 1993). Student retention and academic performance were relevant factors related to supporting a sense of belongingness in higher education institutions (Kennedy & Tuckman, 2013; Sotardi, 2022). Sense of belonging for university students has been related to motivation, enjoyment, academic competency, academic engagement, and higher levels of achievement (Pedler, Willis, Nieuwoudt, 2022). Higher levels of belonging increase motivation for academic engagement and enjoyment within higher education programs which can contribute to student retention (Pedler et al., 2022). LaPointe & Reisetter (2008) state that "if students do not feel part of a learning community – it is unlikely that they will commit the necessary resources to experience an optimal learning opportunity" (p. 652). Without a sense of connection, the motivation to fully participate in higher education learning environments can be limited. A lack of belongingness in college students has been connected to social isolation and limited social support systems and increased risk related to health-related issues (including suicidality) and academic performance (Booker, 2007; Ploskonka & Serveaty-Seib, 2015).

The perception of belongingness is influenced by race, ethnicity, and sexual orientation. For example, the capacity for respectful and supportive classroom interactions between students and faculty encouraged a sense of belongingness among African American college students (Booker, 2007). African American undergraduate students were particularly vulnerable to social isolation and lack of belonging when in predominantly White university settings (Booker, 2007). Findings from Booker's work supported prior research noting that as students become more involved in the academic environment, they experience a greater sense of belongingness. African American undergraduate students felt a stronger sense of belongingness when they had positive interpersonal interactions with faculty and when their viewpoints were valued by fellow students (Booker, 2007). Ploskonka and Seveaty-Seib (2015) identified three key

areas important to student belongingness as part of the mitigation of mental health stressors: family, peers, and academic institution. Environment, relationships, and involvement were key factors in supporting a sense of belonging among minoritized and privileged students (Vaccaro & Newman, 2016).

Online learning adds a level of complexity to the development of a sense of belongingness and community among college students, more specifically graduate students. The number of online graduate students is growing. From 2019 to 2020, enrollment in online graduate programs grew by 63% (Wallenstein, 2022). In addition, the median number of students enrolled in online graduate programs increased (Wallenstein, 2022). Online learning has increased access to higher education among minoritized and low-income students. However, there remains a gap in the academic success of minoritized students as compared to White or Asian students in online educational settings (Pacanksy-Brock et al., 2020). With the increase in online learning opportunities, there is concern that students involved in online programs may not experience the same sense of community and belonging that a student on campus experiences.

Examination of building a sense of community in graduate online education has a practical aspect that cannot be ignored. A sense of belonging and community can positively affect students' educational experiences. Creating community among learners is not an attempt to make a hollow claim about student connectedness used for marketing purposes. Instead, community complements instruction, with students benefiting from the knowledge and expertise of their community (Silvers, O'Connell, & Fewell, 2007). Community building is essential for developing a sense of belonging. In turn, a sense of belonging impacts student retention. Moreover, creating a sense of belonging helps in overcoming feelings of isolation inherent in online learning (Peacock, Cowan, Irvine, & Williams, 2020).

The benefits of building a community for online learners are evident in terms of enhancing learning and creating a higher quality learning experience, but exactly how is a sense of community fostered? Sense of community theory (McMillan & Chavis, 1986) proposed that sense of community was based on membership, influence, integration, and fulfillment of needs, and a shared emotional connection. Membership is a feeling of investment and belonging as a group member. Influence is a sense of cohesiveness and the ability to have value in the personal influence of the group's actions. Integration and fulfillment of needs are defined by the rewarding experience of reinforcement where group members feel success in a sense of togetherness and shared value. A shared emotional connection exists partially from a shared history and identity. These four elements are intrinsic benefits to students that satisfy motives for engaging in online learning within higher education environments. Community is important for online learners as they must fulfill their needs to feel comfortable and safe in their learning environments and feel respected by peers before they can focus on their studies (Peacock & Cowan, 2019). Humanizing the online experience via culturally responsive teaching further supports a sense of community and belongingness, and student success in online teaching venues (Pacansky-Brock et al., 2020).

Previous studies have found several key factors that influence the sense of community and belonging for online graduate students. Peacock et al (2020) found that online learners felt a sense of belonging was important in terms of engagement and interaction with peers as well as tutors, the culture of learning established within course modules, and support. LaPointe & Reisseter (2008) found that online students felt that instructor connection held the highest value in building an optimal learning experience while student-peer interactions were valued low. Berry (2017) found that a sense of community was developed for online doctoral students through the tone an instructor created within the online classroom, the use of a variety of different technologies to engage students, and an online experience that was personalized. O'Meara et al (2017) found that graduate student sense of belonging was most highly impacted by professional relationships with mentors and professionals within the students' departments. These findings suggest that there are various influences on the development of belonging for online graduate students. Skelcher et al (2020) further elucidated the need for research examining "how online students connect with their higher learning institution, especially in considering specific academic programs or departments" (p.128). The variability of research findings, and the need to focus on building online educational programs that support student success provide the foundation for this study.

SENSE OF COMMUNITY INDEX 2 (SCI-2)

For our study, we used The Sense of Community Index version II (Chavis et al., 2008) to better understand online graduate students' sense of community. This scale is based on the Sense of Community Theory (McMillin & Chavis, 1986) and breaks results down into four subcategories of sense of community: reinforcement of needs, membership, influence, and shared emotional connection. This enabled our research team to narrow down areas of strengths or weaknesses and develop actionable suggestions based on data from our surveyed students. This scale has been tested with a variety of cultures and populations and has shown strong behavioral predictions (Chavis et al., 2008). In the online higher education environment, this scale has been used by Skelcher et al. (2020) to look at how online students connect to their universities. This study found 52.8% of students felt that sense of community was somewhat important or higher while 47.3% felt that sense of community was not very important or lower. Additional findings reported that reinforcement of needs was the category most important to students while membership was the least important.

METHOD

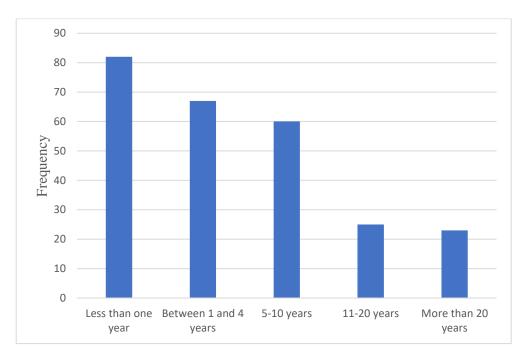
Sense of community and fostering connectedness with an institution among online graduate students were evaluated using a survey of students at a public institution in the southeastern United States. An email invitation to participate in the study along with a link to the survey was sent to students enrolled in online graduate programs. A total of 1,837 students were invited to participate in the study, and 262 usable responses were received. Respondents were not required to answer every question, so the n varies by item.

Survey items measured participants' sense of community, the current level of connectedness to their programs and the university, and preferences for connecting with fellow students and the university in general. Additional survey items collected demographic information and motivation for enrolling in the online graduate program. Sense of community was measured using the 24-item Sense of Community Index, (Chavis, Lee, & Acosta, 2008).

RESULTS

The survey respondents came from 52 different graduate programs across campus. Students whose classes were all online comprised 60.7% of the responses versus 39.3% whose courses were partially online (N=262). The status of respondents was almost evenly split between part-time 50.8% and full-time students (N=252). Respondents ranged in age from 21 to 80 years old with the mean being 37.15 years (N=250). Students reported their last academic experience before graduate school being between less than one year to more than 20 years (N=257). (See Figure 1).

FIGURE 1 TIME SINCE LAST ACADEMIC EXPERIENCE



Students were asked how many online courses they have taken including any they were in at the time. Those who had taken 11 or more courses online made up the highest percentage of responses. (See Table 1).

TABLE 1 TIME SINCE LAST ACADEMIC EXPERIENCE

Number of Courses	Frequency	Percent	
11+	95	37.8	
6-10	67	26.7	
3-5	60	23.9	
1-2	29	11.6	
Total	251	100.0	

The majority of respondents (56.6%) live in the area surrounding the town where the university is located, while 37.5% live in the same town as the university, 9.4% live in another part of the state, 2.4% live in another state, and 1 respondent lives on campus (N=251).

Students were asked about their current employment status. Most students 176(67.7%) reported being employed full-time, 31 students (11.9%) said they worked part-time, 19 students (7.3%) reported being unemployed, and one student reported that they were retired (.4%). Also, 33 students (12.7%) reported being employed as graduate assistants at the university (N=260).

When stating why they enrolled in their online graduate program, most respondents (62.8%) enrolled in an online graduate program to be eligible for a promotion or raise, to help with their current job, or expand possibilities in their area. Other top reasons included wanting to make a career change (19.5%) or start their professional career (10.3%) (N=250).

When asked if they had visited the campus in person since enrolling in their current program, 65% of students reported having done so (N=256). The top five reasons for visiting campus were to attend class,

visit the university library, work on campus, visit administrative services such as the registrar and financial aid, and attend a lecture or presentation (N=163). (See Figure 2).

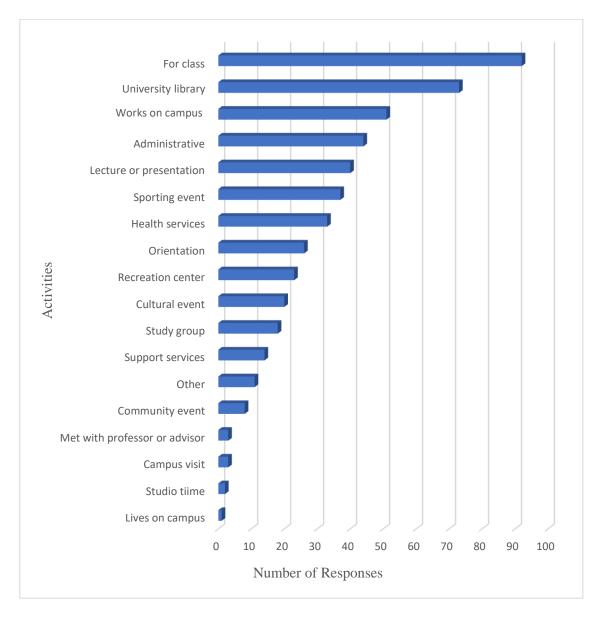


FIGURE 2
REASONS FOR CAMPUS VISITS

Survey respondents were asked what kinds of activities, both in person and virtual, they would be interested in attending. (See Figure 3). The number one answer (n=125) by far was mentoring, either as a mentee or a mentor. In-person field trips (n=81) and in-person social events (n=78) were next closely followed by virtual social events (n=63) and virtual study sessions (n=57) rounding out the top five answers. (N=243). Forty-seven respondents indicated that they were not interested in any of the activities. Of those who weren't interested in any of the activities, it appears that taking only online classes and working full-time were factors. A chi-square test of independence was performed to examine the relationship between employment status and the lack of interest in any activities. The relation between these variables was significant, x^2 (1, x^2

interested in any activities. Again, a chi-square test of independence was performed to examine the relation between the format of classes and the lack of interest in any activities. The relation between these variables was significant, x^2 (1, N = 233) = 13.654, p < .001. Students who are enrolled in all online courses are more likely not to be interested in any activities.

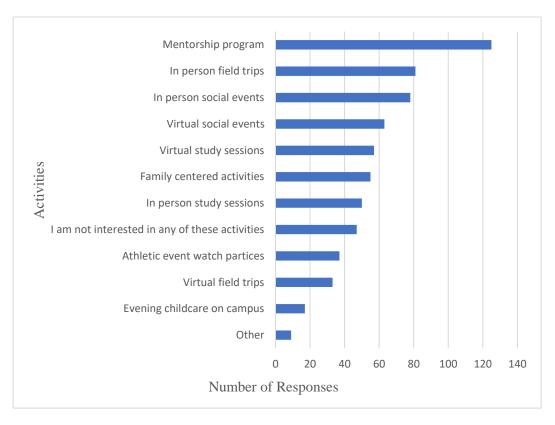


FIGURE 3
TYPES OF DESIRED ACTIVITIES

Two survey questions from the SCI-2 probed interest in being connected to the community, the first at the program level and the second at the university level. Students rated feeling a sense of community in their program (M = 4.40, SD = .976) as more important than to the university as a whole (M = 4.07, SD = 1.18). Overall responses to "How important is it to you to feel a sense of community with other community members?" yielded three distinct segments. Approximately 20% of respondents said it was "not important at all" or "not very important." A second segment (40%), said it was "somewhat important." A third segment (40%) indicated a sense of community was "important" or "very important."

The 24-item SCI-2 inventory was used to ask respondents about their feelings regarding both the university community and the community within their academic program. At the university level, the three items with which respondents had the highest positive responses were "I feel hopeful about the future of this community" (M = 1.76), "This community has good leaders" (M = 1.73), and "Being a member of this community makes me feel good" (M = 1.66). Items with the least positive responses included "Most community members know me" (M = 0.72), "I have influence over what this community is like" (M = 0.85), and "I am with other community members a lot and enjoy being with them" (M = 0.94).

TABLE 2
IMPORTANCE OF A SENSE OF COMMUNITY

	Program Community		University Community	
	N	Percent	N	Percent
Prefer not to be a part of this community	0	0	2	1.0
Not important at all	8	3.5	24	12.1
Not very important	26	11.5	25	12.6
Somewhat important	89	39.4	79	39.7
Important	73	32.3	46	23.1
Very Important	30	13.3	23	11.5
Total	226	100.0	199	100.0

The overall mean score for a sense of community at the university level was slightly below the midpoint of the scale ($M=1.32,\ SD=0.96$). Among the four subscales of the SCI-2, respondents rated "Reinforcement of Needs" highest ($M=1.44,\ SD=0.88$), followed by "Shared Emotional Connection" ($M=1.35,\ SD=0.97$), "Influence" ($M=1.34,\ SD=0.95$), and "Membership" ($M=1.17,\ SD=0.98$). A oneway between-subjects ANOVA indicated a significant difference between subscore means [F(3, 4739) = 16.25, p <0.001]. Post-hoc Tukey/Kramer showed that significant differences existed between the subscore for "Membership" and the other three subscores, demonstrating students' specific lack of sense of community in that area.

At the program level, respondents indicated the highest positive response for "Being a member of this community makes me feel good" (M = 1.82), "This community has good leaders" (M = 1.79), and "People in this community have similar needs, priorities, and goals" (M = 1.64). The items with the lowest ratings were "Members of this community have shared important events, such as holidays, celebrations, or disasters" (M = 0.74), "I have influence over what this community is like" (M = 0.84), and "Most community members know me" (M = 0.85).

Program-level sense of community was similar to the university level in aggregate (M=1.31, SD=0.96). At this level of analysis, respondents rated the subscale "Reinforcement of Needs" highest (M=1.53, SD=0.87), followed by "Influence" (M=1.36, SD=0.95), "Shared Emotional Connection" (M=1.24, SD=1.01), and "Membership" (M=1.12, SD=0.94). A one-way between-subjects ANOVA indicated a significant difference between subscore means [F(3, 5353) = 47.25, p <0.001]. A posthoc Tukey/Kramer test showed that significant differences existed between all pairs of subscores, indicating that a sense of community within the academic programs was not felt equally across the components of the scale.

The aggregate and subscale means were compared for the respondents' ratings for a sense of community within their program and to the university. Two-tailed t-tests revealed no significant difference between the aggregate means (p = 0.58). However, there were significant differences in "Reinforcement of Needs" between the program (M = 1.53, SD = 0.87) and university (M = 1.44, SD = 0.88, p = 0.006) and for the subscale "Shared Emotional Connection" (program M = 1.24, SD = 1.01; university M = 1.35, SD = 0.97, p = 0.01). These differences suggest that student needs may best be met at the program level while the institution plays a larger role in creating an emotional connection to the university. These complementary roles may inform different kinds of extra-curricular initiatives, such as those requested in Figure 3.

The average and standard deviation values from the 24-item SCI-2 inventory are shown in Table 3, contrasting the responses from the program level and the university level for each item.

TABLE 3
PROGRAM VS UNIVERSITY SCORES

Item	Program-Level M	SD	University-Level M	SD
1	1.26	0.92	1.28	0.9
2	1.46	0.75	1.33	0.76
3	1.59	0.8	1.53	0.81
4	1.81	0.82	1.65	0.93
5	1.43	0.99	1.32	0.98
6	1.65	0.82	1.5	0.83
7	1.57	0.81	1.41	0.83
8	1.11	0.94	0.93	0.9
9	0.86	0.85	0.72	0.88
10	1.07	1.05	1.58	1.04
11	1.12	0.85	1.19	0.97
12	0.98	0.95	1.18	0.96
13	1.23	0.93	1.22	0.97
14	1.55	0.88	1.64	0.91
15	1.25	0.94	1.16	0.9
16	0.85	0.88	0.85	0.91
17	1.46	0.9	1.44	0.84
18	1.82	0.88	1.73	0.87
19	1.41	0.97	1.39	1
20	0.88	0.97	0.94	1.02
21	1.23	1.03	1.39	1.04
22	0.75	0.93	1.06	0.97
23	1.65	0.97	1.76	0.98
24	1.53	0.87	1.53	0.85
Aggregate	1.31	0.90	1.32	0.91

DISCUSSION

The results of this project provide a clearer understanding of the sense of community experienced by graduate students enrolled in online courses.

Life Circumstances Characteristic of the Online Graduate Student Population

Most participants in the current sample had graduated from their undergraduate program fairly recently or within the past 10 years. While students were equally likely to be full-time or part-time in enrollment status, most (67.7%) participants reported working full-time. Also, most students listed wanting to further their careers within their current field or position rather than making a shift to a different career as their reasoning for enrolling in graduate school.

As the university is a state school that offers reduced in-state tuition, it makes sense that the vast majority of participants live within the state. However, the fact that slightly over half reside within the same town as the university and over 80% live relatively close by makes it more likely that these students would be able to attend in-person or on-campus events, even though they are registered in online courses. Only 65% report having done so. Besides in-person class attendance (some students are enrolled in hybrid programs with a mix of in-person and online courses), visiting the library was the next highest reason reported for coming to campus. There is some literature specific to leveraging the library as a point of deepening a sense of community (Sengupta et al., 2020), and this research affirms the potential for exploring these possibilities.

Sense of Community Among Online Graduate Students Concerning the University and Academic Program

In general, the overall sense of community was very similar at both the university and program levels. When evaluated at the subscale level, results are more telling. At the university level, online graduate students reported a significantly lower sense of membership as compared to the reinforcement of needs, influence, and shared emotional connection. Similar to the university level, membership was also the lowest reported of the subscales at the program level. However, as a subscale, reinforcement of needs was scored significantly higher than the other subscales. This subscale at the program level was also significantly higher than the same subscale at the university level, revealing reinforcement of needs to be a strength of programs that can be capitalized upon to increase the overall sense of community. Conversely, students reported a significantly higher shared emotional connection at the university level than at the program level.

Types of Programming Desired by the Online Graduate Student Population in Order to Increase the Sense of Community

The mentorship was the most frequently desired programming. Mangione et al. (2017) explore the benefits of mentorship specific to graduate programs in clinical psychology, but there is potential to extrapolate their findings to programs in other disciplines. For example, 81% of participants would have preferred having a mentor from the very beginning of their graduate program. Additionally, participants valued both the pragmatic and emotional support offered by mentors (Mangione et al., 2017).

In-person activities, such as social events and field trips, were both also highly requested. This is not surprising, given that 80% of respondents reside relatively close to the university. These types of programming have the potential to fit well with findings related to subscales in that university-wide social events may strengthen student perception of a shared emotional connection, and program or course-specific field trips may reinforce discipline-specific student needs. These findings are unique in the fact that previous studies of online graduate students have only mentioned a desire for in-person social events in terms of on-campus office hours (Jamison & Bolliger, 2020).

LIMITATIONS

This descriptive study is a one-time survey of online graduate students at a public university in the Southeast and it cannot be inferred that these results can be replicated elsewhere. One survey question that should have been asked in retrospect is whether the students graduated from the same university with their graduate degrees. That question might have offered further insights into a sense of community among those students.

Additionally, this survey did not include any questions on race or ethnicity. Given that sense of belonging in university settings has been lower among minoritized students at the undergraduate level (Booker, 2007), there is a possibility that these students would be less likely to pursue graduate education, to begin with. Future research should take this factor into account and explore its potential influence at the graduate level.

CONCLUSION

Findings from this research give administrators and faculty involved with leading online graduate programs insight into the students' attitudes toward a sense of community. Moreover, the study's results revealed what students desire in terms of feeling like they are part of a community with others at the institution and the programming the institution could offer to foster a sense of community. Results suggest potential exists for creating a sense of community as overall responses were favorable toward what a community of students could achieve together. However, challenges exist to building a strong community among online learners in graduate programs.

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