

RESEARCH ARTICLE

You Belong Here

Plan for and Design Diverse, Equitable, and Inclusive Campus Spaces

by Shannon Dowling, MArch, AIA, LEEDAP

Many marginalized student populations don't see themselves as higher education material. Creating places on campus that reaffirm to them that they belong is vital.

Introduction

When my son was diagnosed with dyslexia in second grade, I read everything I could about that neurodiversity, including the difficulties and social problems that can arise and also the aptitudes and strengths unique to his way of thinking. As an adjunct professor at Virginia Commonwealth University (VCU) at the time, my son's diagnosis heightened my awareness of how my students' backgrounds and perspectives influenced their college experience. In her book, *Sitting Pretty: The View from My Ordinary Resilient Disabled Body*, disability advocate Rebekah Taussig described the freedom she felt as a child

4 TAKEAWAYS . . .

. . . to Assure Students Feel Seen, Heard, and Welcomed

1. **Center students in planning and design conversations.**
2. **Establish a common vocabulary** for how DEIB goals can be implemented on campus.
3. **Make an immediate impact on campus belonging** with quick adaptations to physical space.
4. **Measure success as improvement over time**, not as a competition against peers.

before realizing the world was not designed for people like her, part of a disabled and marginalized population. She imagined a world “that sees humans on the margins and says, ‘You have what we want! What barriers can we remove so we can have you around? What do you need? How can we make that happen?’” (Taussig 16).

Higher education has roots in the United States dating back almost 400 years. For much of that time, students in our classrooms today would have been intentionally excluded from seeking a degree. Historically, college campuses were designed for young, Christian, Caucasian males from wealthy families who had the luxury of spending their early adult years out of the workforce to pursue an education. But over time the introduction of historically black colleges and universities, land grant institutions, the GI Bill, and the Higher Education Act of 1965 opened the doors to college for millions of high-performing, low- and middle-income high school graduates. Today, more than 20 million students, approximately 7 percent of the US population, are enrolled in higher education. According to the National Center for Education Statistics, more than half of these students are female, a third are first-generation enrollees, and almost half are Black, Indigenous, or people of color. Seventy percent of full-time students are employed. In addition, adult learners are returning to college for reskilling and high school students are taking dual-enrollment courses. Student populations vary more in background, socioeconomic situation, ethnicity, and age than ever before. How accessible do our physical campuses, originally designed for a specific audience, feel to the multifarious student bodies that live and

learn there now? What values can we illustrate through our planning efforts to ensure campuses are welcoming and inclusive of today’s students?

Through a Society for College and University Planning (SCUP) Fellows fellowship during the 2020–2021 academic year, I conducted research with over two dozen institutions around the topic of how the built environment fosters diversity, equity, inclusion, and belonging (DEIB). I talked with university staff from departments such as planning and design; facilities management; the office of diversity, equity, and inclusion; academic affairs; and student affairs. Most importantly, I engaged with approximately 300 students to understand their comfort levels in different campus environments. Many institutional stakeholders admitted they were only beginning to explore the relationship between physical space and belonging. Students, on the other hand, fluently articulated what campus design qualities drove feelings of inclusion and belonging.

Interactions with students included three methods: a 5-question survey distributed through social media channels, 30-to-60-minute interviews arranged directly through the institutions or through personal and professional networks, and a month-long competition explicitly aimed at design students. The competition prompted students to consider a space—a residential hall suite, a group of classrooms, or a student study/social space—to explore the ways diversity, inclusion, and equity can take a physical shape on campus. The student design competition was hosted via the website designfortheperiphery.com and distributed through AIA and IIDA chapters.



“It is so much easier to connect with your professor when you are sitting at the same table and the same level as them.”

The majority of the submissions were from Virginia students, but students from as far west as Arizona and as far north as Toronto submitted design projects.

Through the survey, I asked students their comfort level in different campus environments and while participating in various student-oriented activities. I inquired about classroom furniture and technology, and their preferences for course section size. Finally, I asked students what spatial qualities they looked for in a study space. The interviews explored the “why” behind survey answers to the questions about design preferences. Lastly, student competition projects provided a sincere narrative from experienced end users as to what furniture, materials, and space needs should be considered when designing a space that curates a sense of belonging.

Themes emerged in the design proposals around physiological needs, safety, and belonging. I turned my research into a playbook that provides high-level suggestions to assess physical space from a student-centered DEIB lens. The playbook gives everyone a similar vocabulary through which to talk about physical applications of DEIB. The playbook does not provide points or numerical values for achieving an outlined metric like other rating systems. Instead, it recognizes that institutions have individual goals, priorities, and funding sources for improvement.

Rather than provide a way to measure against peer institutions, the playbook offers strategies to begin working toward inclusion and a menu of methods to measure progress over time. The playbook examines five core campus space types most mentioned by students throughout the listening sessions: outdoor spaces, student study and lounge spaces, formal learning environments, faculty and staff office spaces, and residential life spaces. Strategies outlined in the playbook range from quick wins—small changes institutions can make for little cost that can have an immediate impact—to long-term steps toward authentic improvements. By embedding DEIB values into our planning for physical space improvements, we can create lasting cultural change on our college campuses.

Outdoor Spaces

The pandemic highlighted the value of outdoor spaces to the student experience. Many institutions quickly altered their outdoor environments to offer more places for students to socialize safely. Successful, low-cost additions such as hammocks, rocking chairs, and fire pits proved popular with many students. But challenges still limit access to these new gathering spaces. For example, uneven paving materials create a barrier for wheelchairs, canes, and even specific footwear. Acoustics can be challenging and unpredictable. Outdoor climates are hard to predict or regulate. And often, students today prefer a more casual and low-cost environment over the physical grounds of a traditional campus and its manicured appearance.



Nonetheless, outdoor space welcomes us to campus. Signage, gateways, plants, and paving patterns weave together the facilities where stakeholders live, work, and learn. Outdoor space reinforces a campus community's environmental, economic, and social well-being. In my research, two-thirds of students were either comfortable or extremely comfortable in on-campus outdoor environments. Students enjoy green space and sunlight as a means of relaxation. Will Walker, a graduate student at Indiana University, shared: "I like working outside in any of the green spaces [and] being outside in the sun." The student design projects illustrated outdoor environments where users could engage with space at multiple scales and through numerous modes of travel. Because students desire to curate their living and learning environment, they value sustainability and biophilic design and want to be in spaces that utilize sustainable and local materials, water reduction, and passive ventilation. Students also appreciate the ability to garden.

Students look for open landscapes with good views and clear sightlines where they can eat lunch or relax with friends. Institutions should aim to provide a palette of outdoor spaces at different scales, levels of landscaping, privacy, materials, and with different furnishings. Users with physical disabilities should be able to navigate these spaces and enjoy them alongside their peers. Abra Granger, a University of Richmond student-athlete, noted even short-term injuries that result in a need for assistive mobility devices such as a scooter or crutches can present a navigation problem. "That temporary disability that we don't account for on campus [makes] you notice really quickly how hard it is

to get around, to get doors open. I know from personal experience how difficult that can be."

Some quick improvements to outdoor spaces could include unbolting furnishings or adding low-cost mobile furniture that students can rearrange. Also, institutions can encourage artistic expression by installing a chalkboard, leaving a bucket of chalk outside by a busy walkway, or asking student artists to paint murals on blank campus walls or fences. The Free Expression Tunnel at North Carolina State University, a pedestrian tunnel under the railroad tracks where people are encouraged to add expressions to the walls, is an excellent example of the trust and autonomy the institution gives its student body over an otherwise mundane outdoor space.

To measure progress toward more inclusive outdoor environments, institutions can document and try to improve on the number of intentional outdoor environments, the variety of outdoor furnishings, and/or the number of transportation modes accommodated as a ratio to the student population. Institutions can audit for accessible paths and entryways, complete street grids, directional signage at buildings and streets, and native vegetation.

About Student Study and Lounge Spaces and Recommendations for Improvement

Just as the pandemic accentuated the importance of outdoor spaces on campus, it also has proven that the added value of a physical campus is in the interstitial space that allows students, faculty, staff,



College students understand their needs, can vocalize their opinions, and want to feel that their views are heard and valued.

and community to share time and place. Flexible, open spaces facilitate social connection, collaboration, and cross-pollination of people, cultures, and ideas. Many older academic buildings lack sufficient informal space for students to gather before entering the classroom or laboratory, or to connect with a professor to continue a discussion after class. Older facilities follow a “cells and bells” model of a double-loaded corridor flanked by assigned and scheduled instructional spaces. Lacking transparency and porosity, they are devoid of flexible and unscheduled spaces that support anytime, anywhere, anyplace learning.

Students reported being most comfortable on campus when meeting new people and making friends—activities facilitated through student study and lounge spaces. They appreciate open spaces where they can study with friends, have access to technology, where food and drink are permitted, and with natural light and views of the outdoors. Jordan Nguyen, a student of Asian-American descent at Longwood University, shared that the library was her favorite place on campus: “We would sit in the same area but do our own thing. I felt very comforted but also very motivated by seeing my friends do their work.”

The student competition entries in the study and lounge space category emphasized modularity and customization. The students surveyed prefer table and chair arrangements and lounge furniture in informal spaces. They also appreciate whiteboards and monitors that allow for easy plug-and-play of their devices. Students enjoy being around others, both within the university community and the surrounding neighborhood. Informal student spaces should consider different body types, physical abilities, generations, cultures, and neurodiversities. Students also underscored the importance of physical, mental, and emotional well-being and biophilic design.

To immediately impact student study and lounge space, institutions should add armless chairs, soft seating, and waist-high access to power. Other additions could include painting study alcove walls with whiteboard paint and dry erase markers left out to encourage their use; carpet tiles, soft seating, or acoustic finish treatments to study nooks off high-traffic corridors, which would create quiet nooks for neurodiverse students; and altered policies in libraries and other study areas to allow food and drinks. Furthermore, microwaves and refrigerators could be placed where commuter students gather or classes are held at night or on weekends.



Figure 1 **Proposed Student Lounge**, design by Rhode Baptiste, Virginia Commonwealth University, 2021



To measure annual improvements, institutions should consider the percent of informal student space per academic and residential building, the number of different furniture choices or adaptations per informal

space, and the percent of student seats with an unobstructed line of sight to entryways, views to the outdoors, or access to an outlet and monitor or whiteboard.

About Formal Learning Environments and Recommendations for Improvement

Formal learning spaces, where scheduled instruction happens, account for most of the square footage within academic buildings. They structure a student's time on campus. Once front-facing and centered around the instructor, formal learning environments are becoming more agile and student-focused. A 2014 meta-analysis of 642 academic research papers showed that active learning increased performance and decreased failure rates in STEM subjects. A 2020 follow-up meta-analysis demonstrated that active learning also narrows achievement gaps for underrepresented students in these disciplines. Scott Freeman, the main author of both papers, noted that with active learning, "the whole classroom changes to be very supportive, very community, very much 'you belong here; I believe in you.'"

Like with informal environments, students appreciate the ability to manipulate their learning space to their individual needs. They prefer class sizes of between 20 and 50 students. They like seating arrangements that allow them to be at eye-level with peers and the instructor. Because students often come to class equipped with a laptop, notebook, and water bottle, they opt for desks and chairs for the ease of spreading out instead of tablet armchairs. Students like whiteboards for working with others, access to monitors for sharing groupwork, and want to feel seen by instructors; large lecture halls left them feeling distracted and disconnected. Catherine Guarino, a student of non-traditional age at VCU, mentioned she

preferred smaller classrooms where students can move the furniture around: "Doing group activities made it feel like everyone was on the same page. I did not feel seen or connected in larger lecture halls. It was distracting to be right next to someone."

To get started toward fostering belonging in formal learning spaces, institutions could add a couple of stand-alone desks and armless chairs to tablet-arm dominant classrooms, removing seats to increase elbow room in spaces with low seat-fill rates. Another suggestion is to rearrange furniture so no student has an obstructed view of instructional material. If a room has mobile furniture, optional layouts could be posted to encourage instructors to take advantage of the flexibility.

Possible metrics to assess DEIB improvements include assignable square-foot-per-student, the number of different furniture choices or adaptations, the percent of accessible desks, and the percent of student seats with an unobstructed line of sight to entryways, views to the outdoors, and access to an outlet and monitor or whiteboard in each instructional space. A good resource for additional metrics for active learning is EDUCAUSE's Learning Space Rating System.



Figure 2 **Proposed Classroom + Collaborative Lounge**, design by Nora Alkeyat, Ryerson University, 2021



About Faculty and Staff Office Spaces and Recommendations for Improvements

On-campus workplaces are influential: they are where many employees spend the majority of their day performing various tasks in support of students, departments, research, and service efforts. Office space takes up a substantial amount of the physical campus footprint, often around 25–30 percent of non-residential assignable square feet. According to the *Chronicle of Higher Education*, however, some students think that office space is not for student visits and that office hours are the times during which the professor

shouldn't be disturbed: “Cultural gaps like that don’t just make first-generation students feel like outsiders—they get in the way of their success.” With many faculty offices located behind closed doors or down long, private corridors, it’s easy to see how poor design contributes to the confusion.

Students reported a preference for open office spaces that intentionally lack doors or hallways separating students from faculty. My conversations with faculty and staff confirmed student preferences. They suggested that designers eliminate furniture arrangements that create a barrier to authentic

dialogue and instead favor comfortable, welcoming layouts that put all participants on even footing.

Quick ways to improve belonging include adding armless guest chairs in offices, waiting areas, and conference rooms. When possible, institutions should rearrange desks and monitors that create barriers between occupants and visitors; encourage office occupants to have fidget toys visible and snacks available; and reassign offices to give in-person workers access to daylight and views. Also, it's recommended to include an explanation of office hours

in materials for new students and syllabi, encouraging students to utilize them during orientations and on the first day of classes. Adding signage to direct students from student-centered locations to office locations or creating student work areas if underutilized real estate is available outside of faculty offices would be beneficial. Brandi Condrey, a junior and first-generation transfer student at VCU, told me: "It is so much easier to connect with your professor when you are sitting at the same table and the same level as them."

Figure 3 **Proposed Workplace Hub, design by Apphia Peters, Virginia Commonwealth University, 2021**



When considering DEIB-centered improvements to office space, institutions could contemplate recording the percent of collaboration space per occupant, the percent of faculty offices within sight of an informal student space, and the percent of office layouts where furniture barriers between occupant and visitors have been eliminated. When analyzing individual offices, it's recommended to verify unobstructed line of sight to entryways; views to the outdoors; user control over lighting, acoustics, and thermal comfort; and access to planters, green walls, and calming color palettes.

About Residential Life and Recommendations for Improvement

Residential life programs can positively impact belonging and success by building community and fellowship among students. Living in on-campus housing contributes to better student academic performance, increased retention, and higher graduation rates. Although students typically spend about 35–40 percent of their week in residence halls, nearly 20 percent of students surveyed reported feeling either “uncomfortable” or “extremely uncomfortable” in residence halls. A first-year student at Morehead State University told me about befriending a classmate and later realizing the classmate lived on their hall. The student had been assigned to a single-occupant room in a residence hall without community space where it was hard to meet other students in the building. It contributed to depression and anxiety so severe that she left the university after one semester, feeling it wasn't a good fit for her. Michelle Samura, associate dean for undergraduate education at Chapman University,

noted: “To foster student belonging, it is important for residence halls to be inclusive of diverse backgrounds and provide strong social supports . . . the extent to which students who live in residence halls become socially integrated also serves as an indicator of student persistence.”

Students emphasized a strong preference for student life spaces that cater to all ages, not just traditional undergraduates. They want to have some design control over their room and like rooms close to kitchens, gardens, green spaces, prayer spaces, and lounges. Physiological needs were top-of-mind to students when it came to their living environments.

Simple, quick ways institutions can create belonging in residential life spaces include offering opportunities for customization. Suzanne Walsh, president of Bennett College, suggested student-customized wall decals or pillowcases for dorm rooms. In addition, Student Affairs can clearly label social spaces and display the aligned behavioral expectations. If a residence hall allows service animals, it should set out water and snacks for these animals. Hammocks, rocking chairs, and other popular furniture on lawns and patios outside residence halls can be added. Institutions should consider converting underutilized green areas to places for low-cost social activities such as ping-pong, chess, sand volleyball, or basketball.

Possible metrics to assess improvements around DEIB design progress include tracking and expanding the percent of community space per residence hall; the number of different furniture choices or



adaptations per unit; and the percent of units with user control over lighting, acoustics, and thermal comfort; access to private or communal kitchens; and the availability of all-gender restrooms and animal-friendly accommodations. Thinking beyond traditional residence halls, the recommendation is to consider the number and cost of housing options available to graduate students or students on a non-traditional calendar—such as those participating in mini terms, accelerated programs, or hybrid courses—and the number of non-residential students that can be accommodated via nap pods, lounges, or other places of respite.

Conclusion

I vividly remember my own challenges as a first-generation college student: the surroundings were unfamiliar; higher-education culture had unwritten rules; and even small decisions felt nuanced, heavy, and impactful. It is easy to feel alone, underprepared, and overwhelmed. But more so than we give them credit, college students understand their needs, can vocalize their opinions, and want to feel that their views are heard and valued. College campuses offer students a safe space to test fit different personalities, preferences, and relationships as they move toward and through adulthood. Students' needs are not all the same, and one environment will not make every student on campus feel welcomed and included. But when so many decisions feel big and new, giving students simple choices they can control—sitting or standing, hard or soft seating, alone or together—

allows them to customize the environment to their comfort level.

Creating places on campus that reaffirm to students that they belong is vital. Choice and voice are crucial. Many marginalized student populations don't see themselves as higher education material. Through thoughtful conversation and planning, perhaps we can change that narrative. Physical space is an asset we can all capitalize on.

References

- Brandt, B. et al. "Learning Space Rating System, Version 3." Educause, September 2020. <https://www.educause.edu/eli/initiatives/learning-space-rating-system>.
- Freeman, S. et al. "Active Learning Increases Student Performance in Science, Engineering, and Mathematics." *PNAS* 111, no. 23 (2014): 8410–8415. <https://doi.org/10.1073/pnas.1319030111>.
- Freeman, S. et al. "Active Learning Narrows Achievement Gaps for Underrepresented Students in Undergraduate Science, Technology, Engineering, and Math." *PNAS* 117, no. 12 (2020): 6476–6483. <https://doi.org/10.1073/pnas.1916903117>.
- Freeman, Scott. "It's Not About the Evidence Anymore." Interview by Becky Supiano. *The Chronicle of Higher Education*, June 22, 2022. <https://chronicle.com/article/its-not-about-the-evidence-anymore>.
- Quintana, Chris. "Can This Man Change How Elite Colleges Treat Low-Income Students?," *The Chronicle of Higher Education*, February 15, 2019. <https://chronicle.com/article/can-this-man-change-how-elite-colleges-treat-low-income-students.s>
- Samura, Michelle. "How Can Residence Hall Spaces Facilitate Student Belonging? Examining Students' Experiences to Inform Campus Planning and Programs." *Planning for Higher Education* 44, no. 4 (2016).
- Taussig, Rebekah. *Sitting Pretty: The View from My Ordinary Resilient Disabled Body*. New York: Harper Collins, 2021.



Author Biography



SHANNON DOWLING, MARCH, AIA, LEEDAP, is an architect and educator focused on research-informed and student-centered spaces for higher education. Dowling serves as the lead learning environments strategist at Ayers Saint Gross. She was an adjunct professor of interior design at Virginia Commonwealth University from 2008–2019. Dowling has a Master of Architecture, Metropolitan Research and Design from Southern California Institute of Architecture and a Bachelor of Architecture from Virginia Tech. She was a 2020–2021 SCUP Fellow.

Engage with the Author

To comment on this article or share your own observations, email dowlingshannonb@gmail.com.



PLANNING

FOR Higher Education

Society for College and University Planning

www.scup.org | © 2022 by the Society for College and University Planning | All rights reserved. Published 2022. | ISSN 0736-0983

Indexed in the Current Index to Journals in Education (ERIC), Higher Education Abstracts, and Contents Pages in Education. Also available from ProQuest Information and Learning, 789 E. Eisenhower Parkway, P.O. Box 1346, Ann Arbor, Michigan 48108.

About Planning for Higher Education Journal

Planning for Higher Education is a publication of the Society for College and University Planning, an association of professionals devoted to planning at academic institutions. This journal seeks to transmit the knowledge, ideas, research, and experience most likely to advance the practice of higher education planning and policy making. SCUP members receive a complimentary subscription. The society offers both individual and institutional group memberships.

For contributor guidelines, subscription information, or permission to share from the journal, visit **www.scup.org/phe** or contact **managing.editor@scup.org**. Correspondence about membership should be sent to **membership@scup.org**.

Advertising in the Journal

Thank you to the organizations that have chosen to advertise with SCUP in this publication. Please

remember to consider these organizations when you are looking for additional planning services.

Interested in advertising with SCUP? Please visit **www.scup.org/advertise** or contact **advertise@scup.org**.

About the Society for College and University Planning (SCUP)

At SCUP, we believe that by uniting higher education leaders, we can meet the rapid pace of change and competition, advancing each institution as it shapes and defines its future. Through connection, learning, and expanded conversation, we help create integrated planning solutions that will unleash the promise and potential of higher education.

Our community includes colleges and universities (two-year, four-year, liberal arts, doctoral-granting research institutions, public, private, for-profit, and private sector). Individuals we serve include planning leaders with institution-wide responsibilities, such as presidents, provosts, and other senior roles, to those who are in the trenches, such as chairs, directors, and managers.

What is Integrated Planning?

Integrated planning is a sustainable approach to planning that builds relationships, aligns the organization, and emphasizes preparedness for change.

On the Cover

Proposed Student Lounge
Design by Rhode Baptiste, Virginia Commonwealth University



The Society for College
and University Planning

V51N1 October–December 2022 | i
Read online at www.scup.org/phe