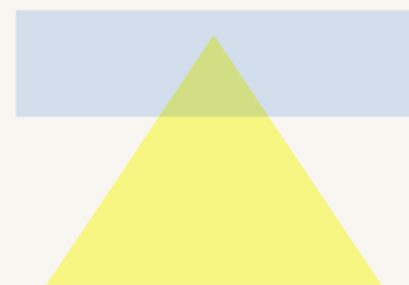
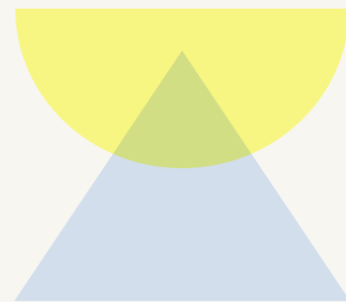


Connecting the Dots: Fostering Belonging and Student Success on the Hybrid Campus

(October, 2023)



Introduction

How can community colleges and broad-access institutions increase engagement among students, particularly those from groups historically excluded from meaningful participation in higher education? What technologies can they use to foster community? And perhaps most importantly, how can they cultivate this sense of belonging among students who may access courses remotely or through some combination of in-person and online instruction?

In the world of higher education, few questions have such important implications.

Let's start with what we know: Researchers have long established that a sense of belonging enhances academic performance, increases persistence, and improves mental health among students.¹ The traditional in-person college experience is replete with community-building activities — from study groups to special interest clubs — that make students feel accepted, encouraged, and valued. Those activities give students a sense that they're not imposters, that college is the right place for them, a place where they belong.

Belonging is also key to developing social capital, an important currency for students as they explore career opportunities.

We also know that enrollment in online post-secondary programs is rising. According to the National Center for Education Statistics, 34 percent of students at two-year institutions were taking at least one online course in fall 2018.² Compare that to 2021, when the number soared to 65 percent.³ While some of the growth may reflect continued COVID-19 protocols, part of it has undoubtedly been prompted by non-traditional students seeking new opportunities through upskilling and reskilling. Whatever the reason, 65 percent of the 17,000 students from 17

¹ Gopalan, Maithreyi and Shannon T. Brady (2020). *College students' sense of belonging: A national perspective*. *Educational Researcher*, 49(2), 134-137. <https://doi.org/10.3102/0013189X19897622>

² *Table 311.15: Number and percentage of students enrolled in degree-granting postsecondary institutions, by distance education participation, location of student, level of enrollment, and control and level of institution: Fall 2017 and Fall 2018*. National Center for Education Statistics. https://nces.ed.gov/programs/digest/d19/tables/dt19_311.15.asp

³ *Table 311.15: Number and percentage of students enrolled in degree-granting postsecondary institutions, by distance education participation, location of student, level of enrollment, and control and level of institution: Fall 2020 and Fall 2021*. National Center for Education Statistics. https://nces.ed.gov/programs/digest/d22/tables/dt22_311.15.asp?current=yes

countries that were surveyed by McKinsey & Company in 2023 said they want online courses to remain post-pandemic.⁴

Given those factors, it stands to reason that institutions are pursuing tools that increase student engagement among the burgeoning online and hybrid student population to increase retention and student success. In the U.S., approximately 40 million learners have started college but haven't earned a degree — about 4 million more than in 2019.⁵ Credentials and degrees are critical to economic mobility: bachelor-degree holders make 31% more than those who have associate degrees and 84% more than those with a high school degree.⁶ But the pathways to this mobility are broken.

Administrators and educators across the country want to move digital education beyond a series of online or hybrid courses where students only connect with their instructors or each other through tiny squares on Zoom. These institutions want a connected online campus community where students collaborate, interact in shared public spaces, and network with faculty, peers, and alumni.

In April 2023, Axim Collaborative — along with partners from the UNCF Institute for Capacity Building, the Harvard Office of the Vice Provost for Advances in Learning, and MIT Open Learning — convened educators, researchers, and tech developers for two days to discuss student belonging in online and hybrid education. The workshop showcased ways institutions can support belonging among students, including building a baseline understanding of the link between belonging and student success among faculty and staff, and developing tools and resources that foster community.

This report, like the workshop, will examine reasons why community colleges and other broad-access institutions have a vested interest in creating systems that make online students feel valued and accepted. It will explain why all students, and in particular students from historically disadvantaged populations and first-generation college students, thrive academically and

⁴ Child, Felipe, Marcus Frank, Jonathan Law, and Jimmy Sarakatsannis (June 7, 2023). *What do higher education students want from online learning?* McKinsey & Company.

<https://www.mckinsey.com/industries/public-sector/our-insights/what-do-higher-education-students-want-from-online-learning#/>

⁵ *Some College, No Credential Student Outcomes: Annual Progress Report – Academic Year 2021/22* (April 2023). National Student Clearinghouse Research Center.

<https://nscresearchcenter.org/some-college-no-credential/>

⁶ Carnevale, Anthony P., Stephen J. Rose and Ban Cheah (2011). *The College Payoff: Education, Occupations, Lifetime Earnings*. Georgetown University Center on Education and the Workforce.

<https://cew.georgetown.edu/wp-content/uploads/collegepayoff-completed.pdf>

emotionally when they feel supported and understood by their instructors as well as their peers. And finally, it will review cutting-edge strategies for transforming disparate groups of online students into true communities.

Rise of hybrid/online for whom?

In October 2020, the World Economic Forum put a fine point on a trend many employers and economists had already spotted: the need for workers' skills to adapt to emerging technologies like artificial intelligence, encryption, and cloud computing. The Future of Jobs Report 2020 revealed that 40 percent of businesses worldwide say employees will need at least six months of reskilling to match the pace at which they're adopting new technologies.⁷ The report also warned that across the globe by 2025, "85 million jobs may be displaced by a shift in the division of labor between humans and machines, while 97 million new roles may emerge that are more adapted to the new division of labor between humans, machines and algorithms."⁸

The next wave of AI is anticipated to cause even more change. A March 2023 report from Goldman Sachs found that two-thirds of jobs in the U.S. and Europe are vulnerable to some degree of AI automation, with generative AI likely to replace as much as one-fourth of current jobs.⁹ The report concluded that generative AI "could expose the equivalent of 300 million full-time jobs to automation."¹⁰

The practical effect of this transformation in higher education, particularly for community colleges, is not only more students enrolling in training and education programs, but different types of students. These institutions have long been a refuge for adults earning their first post-secondary degrees; people whose employers are mandating new skills; and populations with the least amount of resources. But as the pandemic accelerated the pace at which businesses have adopted new technologies, the need for low- and middle-skill employees to possess greater digital literacy and technological dexterity has followed suit.

⁷ *The Future of Jobs 2020* (October 2020). World Economic Forum, p. 5. https://www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf

⁸ Ibid.

⁹ Briggs, Joseph and Jan Hatzius (March 26, 2023). *The Potentially Large Effects of Artificial Intelligence on Economic Growth*. Goldman Sachs. <https://www.gspublishing.com/content/research/en/reports/2023/03/27/d64e052b-0f6e-45d7-967b-d7be35fabd16.html>

¹⁰ Ibid.

Which explains the changing demographics of community college students. The changes predicted by the World Economic Forum will increase the demand for post-secondary training programs with high numbers of workers who will need more support from their institutions.¹¹ For some students, that might look like child-care subsidies. For others, it could involve academic interventions that help them balance their studies with their jobs and families. This evolution also will require two- and four-year colleges alike to expand and improve their online offerings, since the shift will bring even more working adults to the academy.

Additionally, college students more broadly say they want more online educational options. A 2023 survey conducted by the educational advisory firm Tyton Partners found that only one-third of students prefer online courses.¹² And in a development that speaks volumes about the need for institutions to take the concept of “community” seriously, the survey also found that “[s]tudents who enter courses without a set community, such as first-year and fully online students, are more likely to report using digital tools that increase course engagement, including collaboration tools and study aids.”¹³

While students want more options for online and hybrid education, the data show that flexible offerings increase success but that above a certain “tipping point” of online course load the likelihood of student success starts going down.¹⁴ One study found that students whose course loads included less than one-quarter of online classes were about 21 percentage points more likely to attain an associate degree, and 11 percentage points more likely to attain a bachelor’s than all college students. But those taking only online courses were 16 and 9 percentage points less likely to earn associate or bachelor degrees, respectively.¹⁵ Even more concerning, the study revealed that Black students enrolled exclusively in online classes were more than 18 percentage points less likely to earn a credential.¹⁶

¹¹ Holzer, Harry J. (January 19, 2022). *Understanding the impact of automation on workers, jobs, and wages*. Brookings Institute. <https://www.brookings.edu/articles/understanding-the-impact-of-automation-on-workers-jobs-and-wages/>

¹² Bharadwaj, Ria, Catherine Shaw, Louis NeJame, Sterling Martin, Natasha Janson, and Kristen Fox (June 2023 June). *Time for Class – 2023*. Tyton Partners, p. 8. <https://tytonpartners.com/time-for-class-2023-study-finds-students-are-earlier-adopters-of-generative-ai-tools-than-faculty-and-majority-69-of-learners-prefer-hybrid-blended-or-online-course-formats/>

¹³ Ibid, p. 5.

¹⁴ Shea, Peter and Temi Bidjerano (2018). *Online Course Enrollment in Community College and Degree Completion: The Tipping Point*. The International Review of Research in Open and Distributed Learning, 19(2). <https://doi.org/10.19173/irrodl.v19i2.3460>

¹⁵ Ortagus, J. C. (2023). *The Relationship Between Varying Levels of Online Enrollment and Degree Completion*. *Educational Researcher*, 52(3), 170-173. <https://doi.org/10.3102/0013189X221147522>

¹⁶ Ibid.

These startling statistics about retention and completion rates highlight one of the challenges students face when the majority of their learning takes place off a physical campus: they lack the social supports needed to feel like they belong. And not having a sense of community makes it more likely that they will not be able to complete their studies.

Connection Between Belonging, Student Success

At first blush, the concept of “a sense of belonging” may sound too nebulous — too subjective — for an institution to define, much less cultivate. But if you look closely at students in learning communities that promote belonging, some common themes emerge, said Dr. Mary Murphy, the Herman B. Wells Endowed Professor at Indiana University and founder of the Equity Accelerator, told workshop attendees.

According to Murphy, students with a sense of belonging: feel socially connected, supported, and respected; believe they fit into the college community; trust people at the institution; and aren’t worried about being treated as a stereotype. Their feelings on these matters determine not only how they face challenges, her research found, but impact their academic achievement and persistence while enrolled.

Think of it as Maslow’s Hierarchy of Needs, the Higher Education Edition: belonging is a basic human need that, for college students, “extends to academic belonging, referring to how socially supported and connected students feel — their sense of how they fit into the larger campus community.”¹⁷

A 2022 study found that belonging “increases students’ academic motivation and enjoyment in their studies, which can impact on student achievement and reduces the likelihood of students considering leaving university before completing their studies, thus contributing to student retention.”¹⁸ Terrell Strayhorn, president and CEO of Do Good Work Consulting Group and one of the workshop speakers, has said that students who never experience that sense of belonging “are much more likely to be placed on ‘academic warning,’ compared to peers with a strong sense of belonging who are well-positioned to earn academic awards and scholarships”¹⁹

¹⁷ Academic Belonging. MIT Teaching + Learning Lab.

<https://tll.mit.edu/teaching-resources/inclusive-classroom/academic-belonging/>

¹⁸ Megan Louise Pedler, Royce Willis and Johanna Elizabeth Nieuwoudt (2022). A sense of belonging at university: student retention, motivation and enjoyment. *Journal of Further and Higher Education*, 46:3, 397-408, DOI: [10.1080/0309877X.2021.1955844](https://doi.org/10.1080/0309877X.2021.1955844)

¹⁹ Strayhorn, Terrell L. (June 5, 2023). Belonging, Learning, and the Brain. *Psychology Today*.

<https://www.psychologytoday.com/us/blog/belonging-matters/202306/belonging-learning-and-the-brain>

Historically, however, students of color and other underrepresented populations don't feel as though they belong on college campuses, regardless of whether their learning takes place virtually or in brick-and-mortar classrooms. Part of that is a function of inequitable systemic structures rooted in America's history of enslavement and segregation that have historically excluded students of color and lower socioeconomic populations, according to two leaders of the UNCF Institute for Capacity Building: Julian Thompson, senior director of strategy development, and strategist Dr. Amanda Washington-Lockett.

It wasn't until the rise of historically Black colleges and universities after the Civil War ended in 1865 that higher education was even an option for much of the Black community, they noted. When Black people were admitted into white-majority institutions, they felt isolated academically, culturally, and emotionally. Black Americans, and students of color generally, are more likely to come from school districts with below-average student achievement and are more likely to struggle financially.

"Often, the population of students whom HBCUs serve need those informal spaces to interact with and learn from their peers, to participate in co-curricular engagements, to receive mentorship or internship opportunities, to get into spaces where they receive advice from staff or faculty or other community members," he said.

The lack of meaningful community impacts students long after they leave college, said Frances Villagran-Glover, president of Houston Community College Southeast and the Houston system's interim vice chancellor for student services. Students who don't feel as though they belong are less likely to network, she said, which means they have fewer people to turn to for guidance and connection. In other words, they leave college with less social capital, which is critically important for navigating career options throughout life.

Choosing not to cultivate belonging also can have financial ramifications for colleges like HCC Southeast, and not good ones. Texas doles out money for public higher education based on outcomes rather than enrollment. So if feeling disconnected from the campus culture derails a student's academic programs, the college's retention rates drop. And so does their funding, Villagran-Glover explained. "What we've been doing all along is ensuring that once our students start, they finish," she said.

Fostering Belonging Online

It's not enough for community colleges and broad-access institutions simply to replicate for online learners the community-building strategies that work for face-to-face students. Not only do the student populations differ demographically — online and hybrid students generally are older, have more workforce experience, and are more likely to balance their studies with raising a family — they're also seeking a different type of community. A student enrolled in an online-only apprenticeship program at a community college, for example, is less likely to attend homecoming than a peer who attends classes in person.

Creating a sense of belonging among online students requires its own solutions, according to Peter Decherney, a professor at University of Pennsylvania and Faculty Director of Penn's Online Learning Initiative, and Caroline Levander, a humanities professor and Vice President for Global and Digital Strategy at Rice University who emerged as leaders in online education during the pandemic.

“These obviously won't be the same as experiences on quads, in the library stacks and in student unions,” Decherney and Levander wrote in an article published by Inside Higher Ed. “But we can approximate virtually what is impossible to achieve physically during a global pandemic: encounters between students in far-flung places, between professors in quarantine and between clubs, teams, marching bands, study groups, hall mates, strangers and friends scattered across time zones.”²⁰

Building community in online settings has significant challenges, since students aren't “bumping into people on the quad or in a hallway or a classroom,” said Jennie Sanders, vice president of faculty experience and academic services at Western Governors University. “We have to be really deliberate about how we set up spaces that allow people to make those connections in a way where they feel safe, that feels like there's autonomy.”

Sanders said that's one of the reasons why WGU's mascot is the night owl. It signals to students that the university values the persistence required to simultaneously hold down a full-time job, raise a family, and earn a credential online.

²⁰ Peter Decherney, Peter and Caroline Levander (April 28, 2020). Community Is the Secret to Successfully Enrolling Students in the Fall. *Inside Higher Ed*. <https://www.insidehighered.com/digital-learning/blogs/education-time-corona/community-secret-successfully-enrolling-students-fall>

Below are some strategies for building community and a sense of belonging that were designed with online students in mind:

The Student Experience Project

One of the most important studies on the impact of community and belonging was dubbed, aptly, the Student Experience Project. With a goal of creating more equitable learning environments on college campuses, the project's organizers worked with faculty at six universities to develop in-person and online strategies for improving the student experience.²¹ They focused on five core components: institutional growth mindset, belonging, identity safety, trust and fairness, and self-efficacy.

According to Mary Murphy, founder of the Equity Accelerator, 150 STEM faculty participated over seven semesters. They received training in shifting from a fixed mindset about student achievement — that a student's intelligence is determined at birth and can't change — to a growth mindset, the belief that intelligence can increase through hard work and effective learning strategies. Students who perceived their instructors as having fixed mindsets had a diminished sense of belonging, leading to lower course attendance and higher dropout rates.

Student experience significantly improved for instructors who participated in the project. During fall 2020, researchers observed:

- 1,344 more students having an overall positive learning experience.
- A 31% greater impact for Black, Latinx, and Native American students vs. white and Asian peers, leading researchers to conclude that an instructor with a growth mindset might have an even greater impact on students from groups that have been negatively stereotyped as lacking intelligence.
- A 43% greater impact for financially stressed students vs. their non-stressed peers.

Researchers also discovered a link between the instructors' strategies to foster belonging and academic achievement. More students earned A's and B's in participating STEM courses during fall 2020 (12 percent higher) and spring 2021 (7 percent higher). And there were 26 percent fewer D's, F's, and withdrawals in fall 2020, and another 18 percent fewer in spring 2021.

²¹ Increasing Equity in College Student Experience: Findings from a National Collaborative (July 2020). *Student Experience Project*. <https://studentexperienceproject.org/wp-content/uploads/Increasing-Equity-in-Student-Experience-Findings-from-a-National-Collaborative.pdf>

Project organizers offered four recommendations for colleges looking to improve the student experience and foster community:

- 1) Center the perspective and experience of students in efforts to improve student success.
- 2) Gather real-time data to continuously improve student experience using an iterative approach.
- 3) Partner with faculty to support their role as change agents promoting equitable student experience.
- 4) Commit to accountability that centers equitable student experience in every division at the institution.²²

HBCUv

Historically Black colleges and universities were born out of a lack of belonging, according to UNCF Senior Director of Strategy Development Julian Thompson.

“The institutions we represent literally figured out pathways for formerly enslaved people to learn,” he said. “Their goal was to look at a landscape of exclusion, and then to pick a different way.” For that reason, HBCUs are experts in fostering community among students and boosting their feelings of belonging. As a result, Black graduates of HBCUs are more likely than those of other institutions to thrive in a number of areas, particularly in their financial well-being and purpose.²³ UNCF’s Institute for Capacity Building is creating an online platform that will generate the same sense of inclusion and community for students who learn remotely. The platform, [HBCUv](#), will provide online students with a safe space in which to express what UNCF calls “Black joy” while also honoring the rituals and traditions that have helped HBCUs thrive.

Thompson said one of the key elements for re-imagining an HBCU’s culture online is thinking about spaces where students are free to explore, discover and express an authentic identity. Students develop this sense of belonging in all types of spaces, including study groups, clubs geared toward specific majors, even casual chats with professors after class. The team has begun exploring technologies that create the conditions for this phenomenon online, he said.

²² Ibid.

²³ Grads of Historically Black Colleges Have Well-Being Edge (October 2015). *Gallup-USA Funds Minority College Graduates Report*.
<https://news.gallup.com/poll/186362/grads-historically-black-colleges-edge.aspx>

The result is The Virtual Yard, the space on HBCUv devoted to building the same connections that have served HBCUs since the 1800s.

“To see in the last two to four years the ground swell of research and energy that has been placed in the question of inclusion and belonging in higher education spaces has been refreshing, and something that HBCUs have done instinctively since their founding,” according to Thompson.

HBCUv’s pilot will launch in 2024 with the participation of nine HBCUs. UNCF leaders hope to make the platform available to all 102 HBCUs in the country by 2028. For Amanda Washington-Lockett, the UNCF strategist, there’s something particularly gratifying about HBCUs paving a path for higher education to bolster a sense of belonging online. The larger higher education landscape rarely acknowledges the contributions of HBCUs, she said, so discussing a topic “that HBCU leaders could so easily and so readily answer — which is belonging and inclusivity— was a pretty pivotal moment for me,” she said.

Conclusion/Solutions

Leaders agree that fostering belonging among online students is ultimately a journey of several small steps. It can be as simple as opening online classes to students a week before the official start date, which Scottsdale Community College in Arizona began doing more than a decade ago, said Lisa Young, faculty administrator for Maricopa Community College’s Open Education Programs and Innovation. [Zero Week](#), as it’s called, gives students a low-risk opportunity to figure out the online platform, get a head start on assignments, or chat with instructors.

“What we found was that students felt much more connected to the course and to the faculty member,” Young said. “They felt that the faculty member was more approachable and that they belonged to part of the community.”

There’s more than anecdotal evidence of the benefits of such a strategy. A study recently published in *Science* magazine examined the impact of “belonging interventions” on college students. The results showed that a 30-minute belonging intervention administered online before the start of classes “increased the rate at which students completed the first year as full-time

students, especially among students in groups that had historically progressed at lower rates.”²⁴ Since students at greatest risk of stopping out or flunking out come from vulnerable populations, these mindsets have extraordinary implications for increasing equity.

Another one of Scottsdale Community College’s programs, the [Loss Momentum Framework](#), identifies periods when students are at greatest risk of dropping out: between registration and the start of class; the first major assignment; the 75% course completion mark; and the final quarter of the course. The framework supports students during those times, propelling them through challenges that might have otherwise stopped them from earning degrees or completing employer-mandated courses.

The framework, like Zero Week, was something officials “tried through a little learning grant just to see if they worked,” said Young. “And then they worked. So we've been scaling up, and every semester, more faculty get on board.”

Likewise, WGU created online study halls for students who yearn for more community with their peers. A faculty member greets them when they enter, and can answer questions when needed, said Sanders, the vice president. “Most of the time, they would just be on camera and studying quietly, not even talking to each other,” she said.

Such strategies offer a window into what’s possible for students when higher education leaders are just as serious about cultivating community online as they are on their physical campuses. For community colleges and other broad-access institutions, the biggest gamble is not acting at all given how critical student success is in placing students on an upward path of economic mobility. There are few risks associated with boosting a student’s sense of belonging — and the benefits, at least for the student, can be life-changing.

²⁴ Walton, Gregory M. et al. Where and with whom does a brief social-belonging intervention promote progress in college? *Science*, 380, 499-505 (2023). <https://doi.org/10.1126/science.ade4420>

Growth in Online Course Enrollments

Fall 2021

	Four-year institutions	Two-year institutions
Total students	13,977,255	4,682,596
Percent with no online courses	41.7	34.8
Percent enrolled in any online courses	58.3	65.2
Percent enrolled in at least one but not all courses	31.1	25.6
Percent exclusively taking online courses	27.2	39.7

Fall 2014

	Four-year institutions	Two-year institutions
Total students	13,492,884	6,714,485
Percent with no online courses	71.3	72.1
Percent enrolled in any online courses	28.7	27.9
Percent enrolled in at least one but not all courses	13.1	17.3
Percent exclusively taking online courses	15.7	10.6

Source: National Center For Education Statistics

2014 data: https://nces.ed.gov/programs/digest/d15/tables/dt15_311.15.asp

2021 data: https://nces.ed.gov/programs/digest/d22/tables/dt22_311.15.asp