

Office of Community College Research and Leadership

What Motivates Community College Students to Enroll Online and Why It Matters

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One of the strongest promises of online education is the potential that this modality could be used to increase access to postsecondary education opportunities and promote a democratic society of educated citizens (Dillon & Cintrón, 1997). Community colleges' use of online education is particularly important in light of the high proportion of underserved students they enroll and the potential for online education to reach underserved students, including disabled, rural, low-income, minority, and developmental students. Cox (2005) suggests, "for the community college sector, which enables access to higher education for the least-advantaged students, clarifying the current state of online practice is essential to preserving the democratizing aspects of public postsecondary schooling" (p. 1756). This study explores two research questions relating to the demand for online education at community colleges:

- 1. What factors motivate community college students to take online courses?
- 2. What factors influence community college students' online course selection?

The factors motivating the demand for online education are discussed and implications for the design of online education at community colleges are provided. These implications highlight how the factors motivating students reflect the needs of underserved student populations and the need to build inclusive environments both on campus and online.

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HIGHLIGHTS

Students use online education to engage in education while meeting a multiplex of responsibilities related to family, work, and community. When selecting courses to take online, students carefully consider both the relative value and difficulty of each course.

Online courses allow students to avoid perceived negative interactions they associate with being on campus.



pathways<mark>to</mark>results

Defining Online Education

One of the challenges in discussing online education is a lack of universal definitions (Benson, 2004; Cejda, 2010). Over the last decade, due to the rapid growth and growing predominance of online education, online education and distance education are frequently treated as synonymous (Allen & Seaman, 2008; Cejda, 2007; Instructional Technology Council, 2011). However, distance education is broader than online education and can include such methods of delivery as CD ROM, pre-recorded video/TV, video/audio conferencing, and correspondence training (Cejda, 2007; Cejda, 2010; Instructional Technology Council, 2011). In 2006-2007, 51% of public 2-year institutions reported offering distance education courses in formats other than online or hybrid/blended (Institute of Educational Sciences, 2008). However, online education had grown to be the predominant distance education vehicle, with 96% of public 2-year institutions reporting having offered online courses and 66% reporting having offered hybrid/blended courses during the 2006-2007 academic year (Institute of Educational Sciences, 2008).

Online courses are typically designated as such based on the proportion of the course that is taught online. The predominant definition of online education is provided by the Sloan Consortium and provides a taxonomy of course modality including three types of courses: a) up to 19% of content is taught online in traditional courses, b) 30-79% of the content is taught online in blended or hybrid courses, and c) 80% or more of the course is taught online in online courses (Allen, Seaman, Poulin, & Straut, 2016). The literature referenced in this brief most often utilizes the broader definition of online education provided by the Sloan Consortium. However, individual colleges use different criteria for what they designate as an online course, with some colleges designating courses with as little as 50% taught online, and other colleges only designating courses that are 100% taught online (Institute of Educational Sciences, 2008). Midwest Community College, the site for this study highlighted in this brief, only designates courses as online where 100% of the instruction is online, and the college designates all mixed modality courses (face-to-face and online) as hybrid courses.

Demand for Online Education at Community Colleges

Demand for online education at community colleges is outpacing supply. From 2004 to 2014, higher education enjoyed a total enrollment gain of about 10%, with a gain of about 60% in online enrollment (Allan & Seaman, 2005; Allen et al., 2016). In 2014, community colleges saw a 2.7% decrease in enrollment, while their online course enrollment rose 4.7% (Lokken, 2015). Of the 5.8 million students who were enrolled in online courses in 2014, 1.9 million (35%) were enrolled at public 2-year institutions (Allen et al., 2016; National Center for Education Statistics, 2014). About 25% of community college students are enrolled in one or more online courses each semester, with nearly half of all community college students having taken at least one fully online course as part of their postsecondary studies (American Association of Community Colleges, 2014).

Community colleges have responded to high demand for online coursework by expanding both the availability of online courses and options for fully online programs of study (Allen et al., 2016). In 2015, 92% of community colleges were offering at least one online degree program, including both associate's and bachelor's level degrees, and 84% provided at least one online certificate program (Lokken, 2015). Online course offerings in community colleges include both academic transfer courses and career and technical education courses. In 2004, Johnson, Benson, Duncan, Shinkareva, Taylor, and Treat, found 76% of community colleges in the United States offered career and technical education courses through distance learning, the vast majority of which was through internet technologies. Online courses are provided in a wide array of subjects, with the highest levels of enrollments found in applied professions (business, law, nursing), social sciences, English, natural sciences, English as a second language, and developmental coursework (Xu & Jaggars, 2013). Despite the growth in available online education, 38% of community college administrators report student demand for online coursework exceeds their current offerings (Lokken, 2015).



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Student Choice to Take Online Coursework

Community college students taking online courses are split nearly evenly between those who enroll only in online courses and students who take a combination of courses that are online and face-to-face (Allen et al, 2016). In some instances, due to distance or because there is no face-to-face alternative for a required course for the students' program, students' participation in online education may be required in order to complete their program of study (Brinkerhoff & Koroghlanian, 2007). However, most community college students have the freedom to choose to take either online or face-to-face classes and further to select the specific online courses they will enroll in. Students who enroll in online courses at community colleges are more likely to be 26 years old or older, parents, employed (often full time), female, and racially diverse than those who enroll in traditional face-to-face courses (Hyllegard, Deng, & Hunter, 2008; Radford, 2011; Reisetter & Boris, 2004; Tanner, Noser, & Totaro, 2009; Wyatt, 2005).

Researchers highlight two interrelated factors as central to students' choice to enroll in online coursework. The first factor is balancing the competing responsibilities of work, family, community service, and school (Aslanian & Clinefelter, 2013; Brinkerhoff & Koroghlanian, 2007; Jaggars 2014; Wyatt, 2005). The second factor is the convenience of being able to engage in the coursework at any time or at any place and at an individualized pace (Aslanian & Clinefelter, 2013; Brinkerhoff & Koroghlanian, 2007; Jaggars, 2014; Wyatt, 2005). When choosing a particular online course students consider the suitability of the subject to be taught online, course difficulty, and how important or interesting the course is to them (Jaggars, 2014).

Methods

Data in this study was collected through individual semi-structured interviews using phenomenographic inquiry, a qualitative methodology under a constructivist framework (Creswell, 2013; Marton, 1994). The sample consisted of 18 students enrolled in at least one online course at Midwest Community College in the spring semester of 2013. Midwest Community College is the second-largest provider of online education in the Illinois Community College System and has provided accredited online courses since 2001 (Illinois Virtual Campus, 2012; Integrated Postsecondary Education Data System, 2013). At Midwest Community College, there is an equivalent face-to-face course for the vast majority of online courses offered, providing a good opportunity to explore students' motivations for taking online courses and factors that influence the specific courses they choose to take online.

Students were recruited via a notice to the online course board requesting volunteers who were 18 years or older and were currently enrolled in at least one online course. The students' ages ranged from 18 to 39 years, with a mean age of 25.7 years. They were primarily female (13 students) and Caucasian (15 students). Most of the students were pursuing an associate's degree (11 students) or were dually enrolled in associate's and bachelor's degree programs (5 students). Seven students expressed a preference for online courses, four expressed a preference for face-to-face courses, and the remaining seven stated they did not have a clear preference. Students in this sample were taking between three and seven courses, with seven of the students enrolled in three classes and one enrolled in seven classes. In total the students were enrolled in 84 courses, 40 (48%) of which were online. The students represented 18 different programs of study, including programs in social sciences and human services, health professions, business and agri-industries, computer science and information technology, mathematics, and humanities.

The interview instrument for this study consisted of 21 open-ended questions created through an iterative process. Interview questions were reverse engineered from findings reported by Wyatt (2005), Brinkerhoff and Koroghlanian (2007); and Paechter, Maier, and Macher (2010). Questions were developed under four construct areas: a) current engagement and history with online education, b) motivation to enroll in online coursework, c) expectations of online coursework (not addressed in this brief), and d) student demographics. Additional questions were developed with feedback from experts who have experience with qualitative methods and online educational processes and who worked with the target population, and from two community college students not otherwise utilized in the study. Techniques utilized throughout data analysis included peer examination, expert review, maintenance of an audit trail, and negative case analysis (Gall, Borg, & Gall, 1996; LeCompte, 2000). Data was blindly coded through an iterative process using a combination of a priori and emergent codes that were repeated, refined, and reviewed for consistency. Descriptions were developed and illustrative quotes were identified to help anchor and describe the individual codes (Taylor & Bogdan, 1998).

Findings

While the full interview transcripts were coded for evidence supporting students' choice to take online courses, the factors motivating students to choose online courses were identified primarily from students' responses to the following four questions:

- 1. Please tell me about your previous experiences with online courses.
- 2. What are the benefits of taking a course online?
- 3. What are the drawbacks of taking a course online?
- 4. Do you have a preference between online and face-to-face courses? If so, why?

There were four factors identified that influenced students' choice to take online courses in general: a) campus environment, b) balancing multiple responsibilities, c) individualized pace, and d) time and cost efficiencies. The factors influencing which courses students take online were identified throughout the full interview transcripts. Evidence of these factors came primarily from asking each student, for each online course they were enrolled in, Why did you choose to take [insert course name] online? There were four factors identified that influenced students choice to take specific courses online: a) perceived difficulty, b) familiarity with online coursework, c) social and academic interactions, and d) relative value.

Students perceived online education as having a wide range of benefits that motivated them to take online courses. These included being able to avoid negative social interactions on campus, effective use of their time, and control over their schedule. They also enrolled in online education when there were barriers to creating schedules that utilized only on-campus courses. They viewed the flexibility in scheduling offered by online education as a mechanism that allowed them to manage the multiple demands on their time and schedule as well as approach the material at their own pace. For these students, managing their schedule was also about managing their identities. Students expressed that their roles as parents, spouses, children, employees, volunteers, entrepreneurs/business owners, congregants, etc. were important to them, and online education allowed them to retain their goals as a student while minimizing the impact on these other identities. Students were strategic about the courses they chose to take online. They chose courses based on what they had come to expect and what they perceived as the benefits and drawbacks of online education, in conjunction with their own skills and knowledgebase and the value they placed on the individual course.



Factors Motivating Community College Students to Take Online Courses

Campus environment. Interactions with peers and faculty on campus and in classrooms impacted students' decisions to take courses online. Students shared that taking online courses allowed them to avoid negative social and academic interactions that they associate with being on campus and being in physical classroom spaces. Students described these interactions on campus as distracting and uncomfortable. Further, they described situations in which they felt unfairly judged based on their gender, age, race, sexuality, or religion, or for being a parent. Students expressed a desire to avoid being judged by students and instructors and described the classroom space as involving a lot of pressure and being intimidating. They also stated that they and other students are more open in online settings and that more students participated in online discussions. One student described online courses as "intellectually pure spaces" in which students are not judged based on gender, age, race, sexuality, religion, etc.

Balancing multiple responsibilities. Students used online education to engage in education while meeting a multiplex of responsibilities related to family, work, and community. Students described complex lives in which they struggled to meet the day-to-day demands of work, school, family, and community. Seventy-two percent of the sample were employed, all of whom expressed that the flexibility of online coursework made it more compatible with their work schedules. Four of these students explained that their work schedules fluctuated on a regular basis and online education increased the number of hours they could potentially work. Four others shared that online courses allowed them to maintain full-time employment. Seven students shared that they took online courses because it allowed them to care for minor children, and four students described obligations related to providing care for other members of their family. Parents in the sample discussed not "missing class" if their children were at school, asleep, or with family members. A couple of students indicated online courses provided the flexibility they needed to engage in community service projects, which they described as providing them with critical field experiences related to their field of study and career goals.

Individualized pace. Students perceived increased control over the pace and timing of their online coursework. For 17 of the 18 students, being able to control when and how they approach their coursework was a factor in their decision to take online courses. They used words such as freedom, ownership, and flexibility to describe their ability to control their own learning schedule. This ownership included the option to change pace throughout the semester as their individual learning needs warrant it and in response to other events in their lives. Students described this as slowing down when they were struggling and working ahead in areas they were confident about. Students also related being able to work ahead and buffer against anticipated or unanticipated demands on their time was an important benefit of online education. Three students, one of whom was concurrently enrolled at two institutions, discussed using online education to increase their course load and accelerate their time to program completion.

Time and cost efficiencies. Students shared that one motivation for engaging in online education was the efficient use of their time and resources. Students made statements regarding a desire to avoid the hassle involved with coming to campus. This hassle included commute time, travel during inclement weather, fuel costs, and limited parking. Several students reported commute times that sometimes exceeded an hour, either due to distance traveled or as a function of relying on public transportation to and from campus. As such, students used online education to reduce the number of days per week they needed to commute to campus. A third of the students expressed frustration with on-campus courses in which they felt much time was wasted. Similarly, a third of the students stated that ability to access their coursework at a time and place convenient to them was a motivation for engaging in online coursework.

Factors Influencing Community Colleges Students' Online Course Selection

Perceived difficulty. Each student shared that they assessed how difficult they anticipated each course to be relative to the other courses they intended to take. In weighing the difficulty of taking a specific course online, students considered their previous learning and personal proficiency on the topic. Students universally stated they favored courses they perceived as easier in selecting what courses to take online. This was true even for those students who in general preferred online courses over face-to-face. For eleven of the students, this preference to take difficult courses face-to-face reflected a perception that online courses in general are harder than traditional face-toface courses. This difference in difficulty was not reflective of any difference in the course content, which students assessed as being generally equivalent across instructional modes. Students explained that online education required them to more actively engage with the materials, required them to take more responsibility for their learning, and involved more extensive and frequent assessments. Specifically, students reported they found online courses to be more writing intensive and that this difference contributed notably to online courses being more challenging. There were three students who perceived online courses as easier than face-to-face courses. The remaining students assessed that mode did not affect course difficulty.

Familiarity with online coursework. The amount of previous experience with online education impacted both which courses students selected and the number of online courses they enrolled in. Fifteen of the students had participated in at least one online course prior to enrolling in courses for the spring semester. On average they had taken three previous online courses, with a range between 1 to 10 courses. Students described a high level of familiarity with on-campus courses. One student expressed a preference for on-campus courses, stating, "I do like traditional classes better, because it is a lot easier to stay on course. It's more familiar." Students expressed being scared and overwhelmed with their initial online course experiences but becoming increasingly comfortable as the course progressed. Several students described intentionally limiting the number of courses they took online. Students suggested that the number of online courses they were comfortable enrolling in concurrently increased as they became more familiar with online coursework.

Social and academic interactions. Students described a lack of social interactions and opportunities to develop relationships with other students as a drawback in online education. This perceived lack of social and academic interactions influenced both the number of online courses and which online courses students enrolled in. Students shared feelings of social isolation in relations to online coursework, stating they were "on their own" and "didn't anticipate that it would be so lonely." They also expressed concerns for a lack of academic interaction with their peers and instructors. Students indicated part of the value of face-to-face courses was the ability to learn from other students' questions and responses and to participate in group exercises with their peers. In considering which courses to take online, students considered the value of being able to ask guestions in real time and in participating in classroom discussions and other classroom activities. One student explained, "There are some classes that you can do online but there are others that you need to be in the class and you need the one-on-one time with the teachers to ask questions."

Relative value. Students described a process of evaluating the relative value of the course to their overall studies. Courses more closely aligned with the student's interests and goals were perceived as having more value. Students referred to courses with a high relative value as more important and essential and typically prioritized taking these classes face-to-face on campus. Courses students perceived as having a lower relative value were taken online. In most cases students expressed a high value for the courses aligned with their major and a lower value for elective and general education courses. However, this was not always the case. One student explained that for some of the classes in his major, although those classes were very important to him, he preferred to take them online because he did not think there was a "point in my being in class 2-3 hours a week, if I am going to do the same thing [at home]."



Summary of Findings

Motivation to enroll in online education and factors influencing the selection of online courses are interrelated. Likewise, most students were influenced by multiple factors outlined in this brief, each impacting their choices to varying degrees. The following student narratives provide illustrative examples of the complex factors impacting students' enrollment in online coursework.

Jacob. Jacob was a young entrepreneur who contributed to his family's business and built a successful seasonal business. This polite but unabashed traditional student strove for excellence and utilized online education to maximize his course load. He was not striving for a goal, but a collection of goals, some immediate, others short term, and still more long term. Online education allowed him to use the gaps in his schedule to participate in accelerated course offerings, and thanks to the mobility associated with online education he took his education home with him during weekends, semester breaks, and summer holidays. He perceived the lack of effective group work and instructor interaction in online education as a limitation to the depth of learning possible. As a result he attempted to choose classes to take online either in which he felt he had strong skills and a knowledgebase. or required courses he assessed as less valuable. Like Jacob, the students in this sample built expectations based on first- and second-hand experiences for what online educational experiences would be like and engaged in online coursework as a strategy for balancing the many external demands placed on their time and energy. They chose their courses through a process of internal reflection in which they positioned their personal skills, knowledge, and values in relation to what they personally perceived as the value and challenge level of the course as well as their general expectations about online learning.

Olivia. Olivia was a bright and eager student who was working toward entry in the college's allied health programs. Olivia learned that she was pregnant during her first semester at college. She turned to online education to allow her to deliver and care for her child without delaying her educational experiences. Olivia decided to test the idea of online education by taking

a single course online during the spring semester. As she learned what was expected of her online, her confidence with the mode increased. As a result she was able to take most of her courses online. This allowed her to continue moving towards her goals without having to be separated for long periods from her infant or incur child care expenses. Students like Olivia look to online education as an opportunity to work around barriers that otherwise could have delayed or diverted them from reaching their goals.

Rachel. Rachel was a second-year student looking to balance a demanding course load with an irregular work schedule. Rachel was motivated by the flexibility an online course would offer her schedule. Primary benefits for Rachel were the ability to pick up more shifts at work and to balance the extra time she would be spending on campus in her laboratory-based courses. Rachel described herself as a self-motivated and studious student and was excited about the idea of self-directed learning. Drawbacks for Rachel included a lack of social interaction with her peers and limited access to instructors. Rachel lacked confidence in her writing ability and was nervous about having her writing on display for the class. Because of her lack of confidence in writing. Rachel expected taking online courses in general would be difficult. There were two specific classes Rachel considered taking online. One was a general education elective course she needed to meet a graduation requirement but that was not closely aligned with her occupational interests; the other was a core course directly related to her field. The elective was a topic she had some knowledge of from previous courses, and she felt it would not be a challenging course. In contrast, her peers had warned her the core course in her field was one of the harder courses in their program of study and would require a lot of time for study. Rachel had a personal interest in the topic of the elective course but did not see any applied benefit of the class; in contrast the core course was central to her future practice. Further, Rachel felt that peer-to-peer learning in the core course might be a critical factor in her success. Rachel decided to take the elective course online and the core course on campus. In selecting courses to take online, students described a process where they carefully considered the relative value and difficulty of each course.

Discussion

The findings of this study primarily support the existing literature on students' motivation to engage in online coursework. While different authors have expressed the specific terms differently, there is a general consensus that the primary driver for students is functional. Specifically, students enrolled in online education as a strategy to balance a multiplex of activities and responsibilities, most notably those associated with work and family (Aslanian & Clinefelter, 2013; Brinkerhoff & Koroghlanian, 2007; Jaggars, 2014; Wyatt, 2005). For the students in this study, the flexibility innate to online education was essential for them to be able to fully engage in their educational pursuits. This flexibility was also reflected in students' description of the ability in online coursework to work at an individualized pace (Aslanian & Clinefelter, 2013; Brinkerhoff & Koroghlanian, 2007; Jaggars, 2014). Students described this individualized pace both in terms of balancing the pace of their education with other life events and in terms of engaging with the materials at a pace that allowed for mastery of the subject without being delayed or stigmatized by their peers. Finally, students in this study sought to capitalize on the time and fiscal costs associated with their coursework (Aslanian & Clinefelter, 2013; Wyatt, 2005). This primarily reflected students' desire to avoid unproductive time in lectures and reduce commute costs.

Campus environment is not a factor impacting online course enrollment that has been explicitly identified in the existing literature. This factor was raised by nearly half of the students in this study as being a key factor in students' choosing to enroll in online courses. There are references in the current literature that, while not explicit, may reflect this factor. For example, Wyatt (2005) found that among the graduate students they surveyed, many were motived to enroll online by the ability to complete the coursework at home. Wyatt interpreted this factor as reflecting students' ability to complete their coursework while caring for their families. It is also possible that students' desire to complete work at home was an indicator there were aspects of the campus experience or environment not conducive to learning for them. However, as the students in Wyatt's study placed a high value on balancing their work and educational schedules, this desire to work from home may reflect students desire to achieve this balance.

The influence of campus environment may also be partly reflected in Jaggars (2014). Jaggars found that learning and interaction preferences, was one of two key factors in students motivation for taking online courses. This included students who perceived the mode of online as being more conducive to learning for them and students who preferred online courses due to the lack of face-to-face interaction with other students (Jaggars, 2014). To exemplify this latter group of study, Jaggars provided the following student quote:

I think a lot of the older, mature people take online classes because they are afraid of the classroom. I was when I first took my first class. I'm like, 'I'm the oldest thing in here and these kids just got out of high school. I can't remember all of this stuff.' And I think the older person, the mature person, leans toward the online classes basically because of, you know, it's almost like stage fright. I mean being out of school for twenty years and then going back to a classroom, it just kind of scares you. It did me. (p. 30)

A student in this study shared a very similar sentiment, stating that online education has been a benefit to him because "If I had to suck up my pride and come in and sit with 18 year olds, I would be intimated from the beginning. I wouldn't speak my mind."

Students related not feeling valued, respected, or otherwise comfortable on campus based on their age, race, gender, sexual orientation, religion, or status as a parent. In this study, this sentiment did not reflect a preference for online education, nor did it reflect a belief that online education was in any way associated with superior learning outcomes. In fact, the students in this study indicated they preferred when possible to take courses they perceived as difficult and having a high value in face-to-face settings. If students, as those in this study related, see online education as a means



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of avoiding negative experiences they associate with campus environments, this may explain in part why students who enrolled in online courses at community colleges are more likely to be 26 years or older, parents, employed (often full time), female, and racially diverse than those who enroll in traditional face-to-face courses only (Hyllegard et al., 2008; Radford, 2011; Reisetter & Boris, 2004; Tanner et al., 2009; Wyatt, 2005).

Students in this study shared that they considered the value of social and academic interactions and the impact of these interactions on their ability to learn the class materials as a factor for selecting which class to take online. This seems in contrast to what was shared by the students in Jaggars (2014). The students in this sample described online learning as lacking the interactions with both faculty and staff they associate with learning in a face-to-face setting. The isolation and sense they are alone in their online courses related to both the social and academic benefits of these interactions. The higher levels of attrition from online coursework may reflect that students select courses to take online they feel are both less difficult and less valuable to them, and that they then find these classes to be both socially and academically isolating (Instructional Technology Council, 2011).

Implications for Practice

Practically, this research provides insight that may assist faculty, instructional designers, and online administrators in improving the educational experiences of their students.

Design online education to be reflective of students' need for flexibility. Students use online education as a functional strategy to balance multiple important activities and responsibilities, including work and family. Integrating flexibility into the course design gives students power to adjust their schedule and the pace of learning to respond to unanticipated events (such as a family member's illness or a change in their work schedule). Designs allowing students to work ahead to create a small buffer or allowing students opportunities to catch up after a life event were highlighted by students as particularly helpful. In general students were expressing a desire for short-term flexibility (a week or less in most cases).

Promote an inclusive image of the college student campus-wide. This study highlights the importance of the educational environment students learn in both on campus and online. It is critical campuses consider means to intentionally address students' negative perceptions of the on-campus environment. These perceptions seem to stem from a combination of students' self-perception of being different from the stereotypical undergraduate student, or what is sometimes termed the traditional student, and from first-hand experiences. As such, campus leadership, faculty, and instructional designers are encouraged to consciously promote the image of a college student that is inclusive and to promote this image in a manner indicating diversity is highly valued by the institution.

Support culturally competent pedagogical practices. This includes creating an environment both on campus and online supporting meaningful interactions among diverse students and faculty groups. To be successful, this environment needs to raise awareness about discriminatory behaviors, including microagressions, and demonstrate a low tolerance for these behaviors. Providing professional development and supporting personal development of faculty and staff facilitating self-awareness around culturally competent practices, as well as providing them with tools to support diverse student groups and create safe learning environments, is key (Congleton, 2014).

Limitations

This study utilized a small volunteer sample of community college students at a single institution in which students were presented with a choice in modes for their coursework. As such, this study has limited generalizability. To be generalizable the findings of this study would need to be tested with a larger body of students across multiple institutions and even regions. Additionally, while the demographic composition of the sample was reflective of the institution, it provided a limited voice to underrepresented populations, especially minorities. This is a critical limitation of this study in light of the findings around campus environment. As such, it is important the finding of this study be supplemented, challenged, or refined by studies that intentionally reflect the voice of students from underserved student populations.

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