Student and Faculty Experiences with Emergency Remote Learning in Spring 2020

Insights from a Small Exploratory Study

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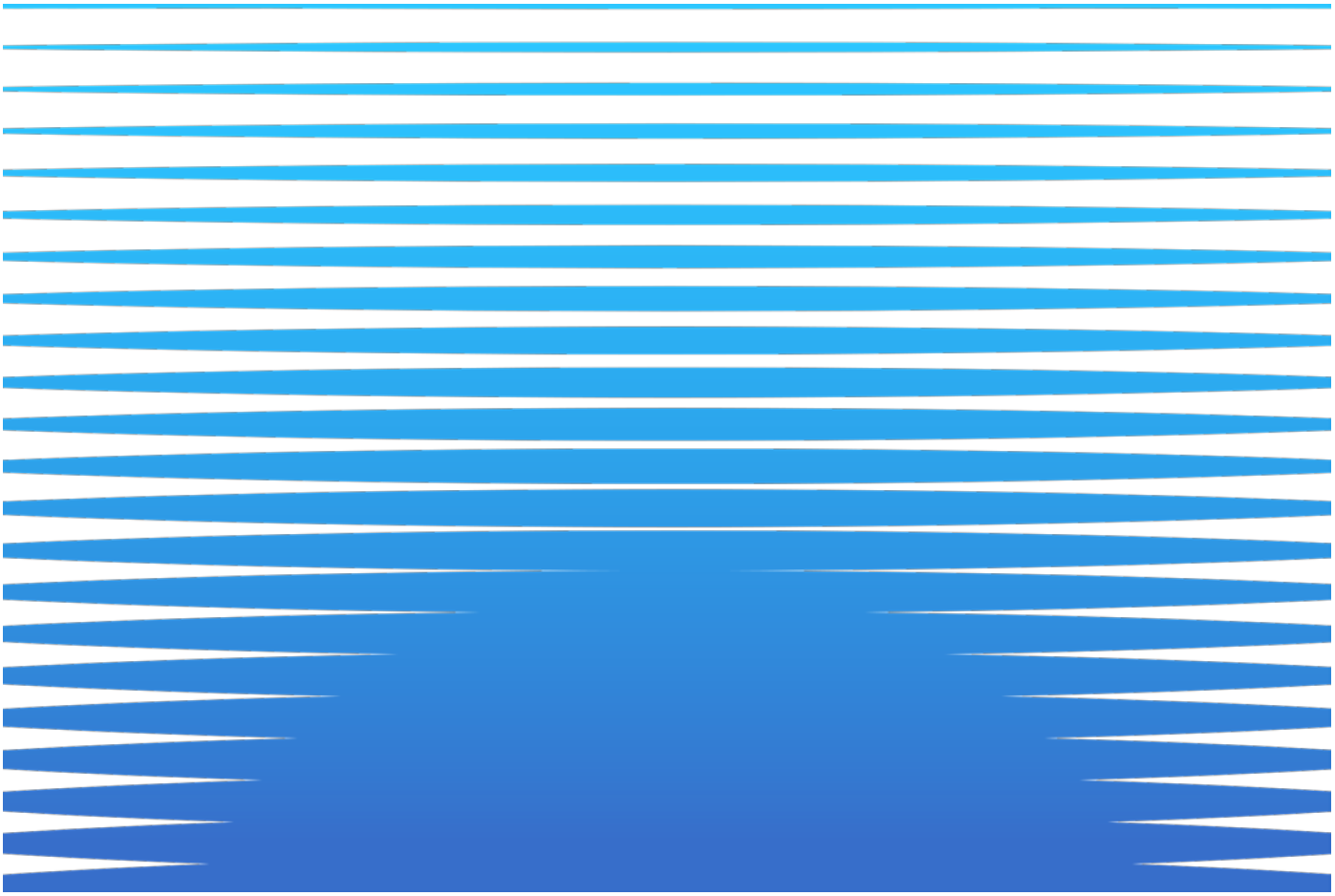

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Executive Summary

The emergency shift to remote learning that took place during the spring 2020 term in response to the COVID-19 pandemic created unprecedented disruptions for students and faculty across colleges and universities, nationwide and globally. As online and hybrid models of learning become prolonged solutions for institutions seeking to contend with the realities of the pandemic and continued uncertainty, the field can gain valuable and actionable insights from the lived experiences of students and faculty at the height of the crisis. This report presents findings and recommendations gleaned from a small exploratory qualitative study conducted over the summer of 2020 to understand how select undergraduate students and faculty experienced the spring emergency pivot at a large, multi-campus, and highly diverse higher education institution system in an urban, metropolitan American city.

To date, publicly-available research on the topic in the United States has relied almost exclusively on survey methodologies, and most of it has focused on students' experiences, with far less data on those of faculty members. Findings from the present study confirmed and provided additional nuance to the patterns of findings found in other studies. Based on a total of 18 virtual focus group discussions conducted in June 2020 with 46 students and 37 faculty members, we found that students and faculty expressed a number of common themes. Both groups reported a wide range of experiences with their transition, from positive to negative, with clear insights about contributing factors. The general valence of their experience aside, many lamented the transactional nature of the online platforms and models that left little room for spontaneous and organic learning, worried that student learning had been compromised—especially in courses that require hands-on labs and practicum, and yearned for compatible technologies to support teaching and learning in a more integrated and organized fashion. While both groups looked to the institution for support in navigating the new technological challenges and emotional demands brought about by the pandemic and the coinciding racial justice movement, many wished for more robust and accessible support services at the height of the crisis.

Our analysis also yielded themes that were unique to the experiences of each group of participants. Many students reported that their ability to work with peers, maintain interest in their classes, and feel a sense of belonging in the campus community suffered during the spring 2020 term. In addition to dealing with varying degrees of technology usage and expectations across their individual courses, students also relayed the negative impact that emergency remote learning had on the social aspect of their learning, which had repercussions for them both on the academic and socioemotional levels. Many highlighted the importance of having a designated space for learning that is free of distractions and fosters a sense of accountability. Across the board, students voiced a desire for both more consistency and flexibility around course expectations and requirements to allow them to be more prepared to meet their learning goals while dealing with the consequences of the pandemic.

Faculty members also had their own unique challenges. As the primary contact between students and the institution, they saw a pronounced increase in their workload during the spring term. Acclimating to online instruction in a swift manner and supporting students and peer

colleagues as they weathered the transition and personal hardship all significantly expanded faculty responsibilities. Many faculty members considered themselves novice online instructors and found it especially difficult to instruct students while navigating overlapping global and national challenges. They expressed an emphatic desire for training in online instruction as well as trauma-informed pedagogy. Moreover, faculty members constantly weighed flexibility against academic rigor in their course design, with no reliable way to know if they struck the right balance. Faculty in our sample reported herculean efforts to accommodate and support their students while keeping them engaged and motivated in their coursework, with some tangible rewards.

We end the report with recommendations for the field, and, despite the challenges reported by our participants, a positive outlook that online learning has the potential to offer more flexible and equitable educational options for many students both throughout and beyond the pandemic. As higher education institutions continue to respond to the unfolding challenges of the present, iterative evaluations to uncover what is working and not working, and how the gaps can be filled in a more integrated manner as new systems are established, will be an integral part of intentional and agile planning for a better future.

Introduction

In early March 2020, colleges and universities across the country were forced to move to a fully remote learning model to stem the spread of COVID-19. This emergency transition was swift and, in some cases, lurching. Administrators were faced with the challenge of making a continuous series of fast decisions that at once responded to a rapidly changing body of public health and safety information, put students in the best position to continue their educational journeys, and addressed faculty needs to that end. Students worked from home contexts that varied in their suitability for learning at large, and online learning in specific, while isolated from the school communities they depended on for academic and social support. Moreover, faculty bore the burden of transforming their courses and engaging in emergency remote teaching and learning practically overnight, while serving as vital liaisons between students and their institution.

> Emergency remote instruction that was undertaken during the spring 2020 term should not be conflated with online teaching and learning more broadly.

The challenges created by this unprecedented moment in the history of higher education cannot be overstated, and successes deserve to be celebrated. Emergency remote instruction that was undertaken during the spring 2020 term should not be conflated with online teaching and learning more broadly—for which there is a large body of literature that predates the COVID-19 pandemic.[1] Nevertheless, as online teaching and learning has become a tool for responding to the ongoing pandemic, and part of the fabric of postsecondary education as a consequence, the field has the opportunity to learn from early experiences to inform iterative plans and strategies for the following academic terms and beyond.

To that end, officials at a metropolitan public university system engaged Ithaka S+R to engage in an exploratory qualitative study around its transition to emergency remote instruction during the spring 2020 term to supplement the institution's learnings gathered through other methodologies (e.g. administrative data analysis and student and faculty surveys). This report presents findings from 18 virtual focus groups conducted with a subset of students and faculty in June 2020 to identify key themes pertaining to their experiences during the transition to remote emergency instruction, and subsequent recommendations for institutional administrators tasked with enhancing plans for full or partial online instruction in the future.

[1] Charles Hodges, Stephanie Moore, Barb Lockee, Torrey Trust and Aaron Bond, "The Difference Between Emergency Remote Teaching and Online Learning," *EDUCAUSEReview*, March 27, 2020, https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning.

Context and Literature Review

The institution under study is a public multi-campus higher education system in an urban, metropolitan city in the US. that became a global epicenter of the pandemic during the spring 2020 term. The city's characteristics, including densely populated dwelling units and neighborhoods, and a large ethnic minority and immigrant population, make the city and the institution's experiences distinctly unique. Despite this unique context, our findings suggest that student and faculty experiences at this institution were similar to those at other institutions in many ways. Below, we summarize findings from other existing studies conducted during or shortly after the spring term to glean a general picture of student and faculty experiences in the nation. In our findings section, we refer back to some of these studies' results where relevant.

To date, publicly-available research on the topic has relied almost exclusively on survey methodologies, and most of it has focused on students' experiences, with far less data on faculty members' perspectives. Each of the existing studies we reviewed uses a relatively large sample, ranging from about 1,000 to 30,000 undergraduate and graduate students. While one report pulls from one specific institution, the rest cover multiple institutions within a particular sector or across various sectors of higher education. This research shows that students were mostly displeased with their overall experience with online learning during the spring 2020 term—an unsurprising finding given the sudden and continually unfolding crisis at the time.[2] Students faced challenges in every area of their lives, with implications for how they felt about their institutions and what they needed from them. Most salient were the internet connectivity and hardware/software issues that interrupted students' ability to participate in their classes.[3] Shoring up personal motivation, finding a quiet place to work, balancing school with home responsibilities, and knowing where to get help with courses also presented at least a minor problem for a majority of students engaged in digital learning from home.[4] For some students, the health and economic shocks that resulted from COVID-19 led to decreased study hours and academic performance, increased class withdrawals, and/or delayed graduation plans.[5] Students identified additional communication and assistance from support services like financial aid and advising as helpful in addressing some of these challenges.[6]

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[2] B. Means and J. Neisler, with Langer Research Associates, "Suddenly Online: A National Survey of Undergraduates During the COVID-19 Pandemic," *Digital Promise*, 2020, https://digitalpromise.org/wp-content/uploads/2020/07/ELE_CoBrand_DP_FINAL_3.pdf; Esteban M. Aucejo, Jacob F. French, Maria Paola Ugalde Araya, and Basit Zafar, "The Impact of COVID-19 on Student Experiences and Expectations: Evidence from a Survey [working paper]," *The National Bureau of Economic Research*, 2020, https://www.nber.org/papers/w27392.

[3] Means et al., 2020.

[4] Ibid; also see Alicia Sasser Modestino, "Coronavirus child-care crisis will set women back a generation," *The Washington Post*, July 29, 2020, https://www.washingtonpost.com/us-policy/2020/07/29/childcare-remote-learning-women-employment/. This Washington Post article asserts that women are likely taking on greater childcare responsibilities during the pandemic, which has possible professional repercussions for women. It also discusses how the amount of lost hours due to decreased childcare options varies by race, educational attainment, and income. It is reasonable to assume that these patterns are replicated for degree-seeking students, especially for non-traditional students.

[5] Esteban et al., 2020.

[6] Nicole Betancourt, "Student Experiences During COVID-19 Actionable Insights Driving Institutional Support for Students," *Ithaka S+R*, April 22, 2020, https://sr.ithaka.org/blog/student-experiences-during-covid-19/; Melissa Blankstein, Jennifer K. Frederick, and

Most notably, the shift to emergency online learning had a distinctive impact on particular subgroups of students. In the studies we reviewed, the severity of challenges experienced while learning digitally varied by race and income.[7] For instance, Hispanic students reported the highest number of challenges after the transition compared to other race/ethnicity groups, and issues with technology were more problematic for low-income students than their counterparts.[8] Additionally, international students, out-of-state students, caretakers, and students with disabilities were more likely to consider not returning to their program in the fall.[9] The problem of equity during the sudden transition to online learning was also one of the key concerns voiced by faculty.[10] Faculty perceived their students' biggest obstacles to be balancing home, work, school, reliable internet access, and their mental health.[11]

Faculty also faced numerous stumbling blocks during the spring 2020 term according to our literature review, and had to make continual adjustments to their practices accordingly. Challenges and concerns created by quickly moving instruction online affected every part of their responsibilities as instructors and researchers. Faculty surveyed soon after the abrupt move to digital learning felt that students were more likely to cheat on assessments while learning online, expressing a heightened concern about academic misconduct given the present circumstances.[12] Additional challenges included adjusting their pedagogy for the online context, keeping students motivated and engaged, administering secure exams, selecting quality online resources, and providing additional support/remediation.[13] Faculty were primarily responsible for guiding themselves through the swift transition to online instruction with few formal supports, despite low levels of preparedness and institutions often lacking the resources needed to facilitate rapid faculty training.[14] Faculty also reported decreased capacity for research-related activities, such as accessing resources, collecting data, and publishing their work, with female faculty being more likely to have reduced their publications during the pandemic.[15]

Christine Wolff-Eisenberg, "Student Experiences During the Pandemic Pivot," *Ithaka S+R*, June 25, 2020, https://sr.ithaka.org/publications/student-experiences-during-the-pandemic-pivot/.

[7] Blankstein et al, 2020; Means et al., 2020 and Esteban et al., 2020.

[8] Means et al., 2020.

[9] SERU Consortium, "Will Students Come Back? Undergraduate Students' Plans to Re-Enroll in Fall 2020," *SERU Consortium*, June 17, 2020, https://cshe.berkeley.edu/sites/default/files/students_plans_-_seru_covid_policy_brief_cshe_0.pdf.

[10] Fox et al., 2020

[11] Kristin Fox, Nandini Srinivasan, and Nicole Lin, "Time for Class – COVID-19 Edition Part 1:

A National Survey of Faculty during COVID-19," Tyton Partners and Every Learner Everywhere, 2020, https://tytonpartners.com/library/time-for-class-covid19-edition-part-1/.

[12] Wiley, "Academic Integrity In the Age of Online Learning," *Wiley*, 2020, http://read.uberflip.com/i/1272071-academic-integrity-in-the-age-of-online-learning/.

[13] Fox et al., 2020

[14] Richard Garrett, Ron Legon, Eric E. Fredericksen, and Bethany Simunich, "CHLOE 5: The Pivot to Remote Teaching in Spring 2020 and Its Impact," Quality Matters, 2020, http://pages.nrccua.org/rs/514-WFI-660/images/CHLOE%205%20The%20Pivot%20to%20Remote%20Teaching%20in%20Spring%202020%20and%20Its%20Impact.pdf.

[15] Nicole Betancourt, "What about Research? Scholarship and COVID-19," *Ithaka S+R*, July 8, 2020, https://sr.ithaka.org/blog/what-about-research-scholarship-and-covid-19/.

Even though faculty members were faced with an array of impediments following the transition to remote instruction, many rose to the occasion and reported positive experiences. Some instructors used a variety of recommended techniques to ensure academic integrity while assessing students (e.g. using question pools, setting time limits, etc.).[16] A majority of faculty successfully used a combination of synchronous and asynchronous models while teaching from home, to accommodate their and their students' needs. During those transitions, they found their institutions and platform providers to be especially helpful. In spite of daunting hurdles, faculty garnered some new perspectives from the experience, which, they believed, would positively impact their teaching overall. Looking towards the fall 2020 semester, they were focused on increasing student engagement and accessibility, designing hybrid-friendly classes, and curating high-quality online resources.[17]

Methodology

The present study was designed while stay-at-home orders were still in place where the institution is located, and data were collected during the very early stages of the city's phased reopening. As such, the institutional system at large, including its students and faculty, were operating in a heightened and uncertain environment. We therefore designed the study to be small in scale and exploratory in nature, and drew on a convenience sample to minimize recruitment burden for institutional staff. We relied on virtual focus groups to maximize the number of participants reached while providing them with the opportunity to debrief with their peers.[18] Appendix A presents details about our methodological approach, including sampling, recruitment, participant information and sample characteristics, and analyses.

The study was guided by two broad research questions: 1) How did sampled faculty and students experience the forced shift to online teaching and learning in spring 2020? and 2) What are the key takeaways that can be applied to the institution's future online teaching and learning initiatives, or efforts in other contexts?

A team of Ithaka S+R researchers conducted nine focus group interviews with a total of 46 undergraduate students, and nine focus group interviews with a total of 37 full-time and contingent faculty members. Collectively, the students comprised a fairly representative distribution of all four grade levels, and represented all of the institution's colleges as well as a diverse set of majors. The faculty represented the majority of colleges and a range of different disciplines.

It is important to note that the study sampling and recruitment strategy likely precluded the most disadvantaged students and faculty from participating. This includes those who were ill, caring for others, or working full-time, and those who have limited or no access to a reliable

[16] Wiley, 2020.

[17] Ibid.

[18] For a summary of best practices in conducting virtual focus groups as well as a more detailed account of how we conducted our own focus groups, see Christy McDaniel & Catherine Suffern, "Conducting Virtual Focus Groups: A Short Methodology Case Study for Social Scientists," *Ithaka S+R*, August 31, 2020, https://sr.ithaka.org/blog/conducting-virtual-focus-groups/.

internet connection or device, among other challenges. The institution and researchers alike deemed it inappropriate to attempt to solicit those potential participants in the midst of the pandemic. As such, the sample and subsequent findings from this study offer the perspective of a subsample of students and faculty whose personal circumstances facilitated their participation in a synchronous pre-scheduled virtual video event—a group that may have experienced more favorable circumstances than their peers, on average, during the spring 2020 term.

Findings

This section outlines findings from the 18 virtual focus groups with our select sample of students and faculty at the institution under study. It covers four overarching cross-themes that were salient across all focus-groups, as well as key themes that emerged from the student or faculty focus groups in specific.

Overarching Cross-Themes

Variation in Individual Experiences

Both faculty and students in our study reported a wide range of experiences with emergency remote learning at the institution in spring 2020. Much of this variation was related to the absence of uniform institutional expectations around technology use leading up to the emergency shift, as well as faculty members' varying levels of prior experience and adeptness with online teaching and related best practices. Since there were no department- or administration-level requirements and training for faculty to use technology in specific ways for their courses prior to COVID-19, faculty across the institution did not share a common baseline of technology experience or the corresponding knowledge. For example, while some faculty had regularly used the institution's learning management system (LMS) to share resources, facilitate communication, and manage assignment submission, others had never used it to supplement their in-person instruction. Furthermore, some faculty were more willing to incorporate technology and additional resources into their pedagogical practices while others had been long-time holdouts. As a consequence, those with prior experience were considerably more equipped than others with limited experience to quickly adapt to the shift and lead a smoother transition to remote instruction.

> Faculty members' varying levels of adeptness with remote instruction contributed to students' experiences and degree of satisfaction with their remote learning.

Aligned with findings from other studies, faculty members' varying levels of adeptness with remote instruction, in turn, contributed to students' experiences and degree of satisfaction with their remote learning in the spring, particularly with respect to assessment and

communication.[19] Students were especially dissatisfied with their remote learning experience when they were assessed using online platforms that impeded their ability to apply their usual test-taking strategies, such as skipping difficult questions and returning to them at a later point. Conversely, students reported a positive learning experience when faculty broke up larger exams in smaller chunks and applied an open-book policy, providing students with opportunities to formatively assess and demonstrate their learning in an incremental manner. Faculty members' communication style and availability also had repercussions for students and how they experienced remote learning. While some faculty were able to keep communication lines with students open, others were less available or completely unreachable. Those who had more communicative faculty reported having a better experience than those who did not.[20] Outside of the faculty's pedagogical choices, student learning and satisfaction were impacted by a number of other challenges they faced during the pandemic-prompted transition, which are discussed in greater detail in the "Student Experiences" section.

Concerns about Quality of Learning

Faculty and students alike felt that student learning had been compromised in the spring, with potential longer-term implications. Students felt that the very nature of the virtual context contributed to a decrease in the quality of their overall learning. As one student noted, "I don't feel like we are getting the education we got when we were in person." Students reported that it was more difficult to get attention from faculty in the virtual space, especially in large lecture classes, and that they didn't feel as comfortable asking questions during online lectures as they did in-person. Less tangible learning that takes place through personal and sustained interactions between students, and with faculty, were also lost in the virtual environment. Students felt they missed out on learning from their classmates' questions in class, and the subsequent conversation, as well as on organic discussions with faculty that often arise in and after class. The transactional nature of the online platforms and models left little room for spontaneous and organic learning, especially in asynchronous models or large remote classes. On the other hand, in smaller classes with less than 20 students, faculty reported being able to frequently interact one-on-one with students over the phone or using a video conferencing platform. One faculty member commented positively on how the move to remote instruction led to increased direct contact with students than in the past.

> Without an opportunity to practice what they've learned in a supervised environment, students were unsure of their ability to apply their learning in real-life contexts.

[19] The relationship between satisfaction with learning quality and faculty practices is well documented in other studies (Fox et al., 2020; Means et al., 2020). Faculty who incorporated more online instructional practices after the emergency shift were generally more satisfied with student learning, and their students experienced greater satisfaction with their learning as well.

[20] It is important to note that the majority of the faculty interviewees in this study reported significantly increasing the frequency of their communications with students as well as their availability, with some reporting communicating with students at all times of the day through various outlets including mobile text messaging. This may reflect faculty sample selection bias, whereby faculty who were capable of fully investing in their courses and students during the spring were almost most likely to volunteer to participate in the study.

Moreover, students expressed concerns about not gaining the hands-on experience that often accompanies STEM or practice-based courses in the form of labs or practicum. Students found themselves engaging in self-teaching without the in-person guidance they could usually count on to support their skill acquisition. Without an opportunity to practice what they've learned in a supervised environment, students were unsure of their ability to apply their learning in real-life contexts. While students found theory-based classes somewhat easier to engage in online compared to practice-based ones, in both cases, students often felt like they were just getting through the coursework instead of gaining a deeper understanding of the subject matter.

Faculty also shared students' concerns pertaining to the quality of learning during the spring 2020 term. They, too, felt that labs and practice-based classes were difficult to deliver remotely, and especially asynchronously. One biology faculty reflected pessimistically on the viability of online lab sessions because they "remove a lot of [students'] decision-making abilities" and it's "impossible'' to teach skills in the online context. Faculty from other disciplines also believed that skill-acquisition courses require in-person or at least especially carefully designed, synchronous interaction. For example, faculty in English and health sciences worried that their students' growth in writing and critical thinking suffered because they could not work face-to-face with them or facilitate synchronous dialogue. Faculty teaching arts courses that typically depend on space, equipment, and tactile instruction also found it difficult to ensure that students achieved adequate learning outcomes. One art faculty noted, "because of [my course's] dependence on the studio and the equipment, in terms of learning outcomes, it was a bit of a crash and burn."

Desire for Compatible Technology

Previous studies have found that hardware and software issues disrupted the participation of many students in their coursework, and identified a gap in supporting faculty to choose high-quality resources for their online courses.[21] The desire to circumvent these disruptions and obtain the necessary support to acquire a coherent set of quality, appropriate technology tools was also apparent throughout both faculty and student focus groups in the present study. Students repeatedly voiced interest in having a centralized online platform for their coursework. Faculty, on the other hand, expressed a desire to curate a customized collection of integrated tools to best support student learning in specific content areas and fit their personal preferences. One faculty member acknowledged this inevitable tension between faculty and student needs, and eventually simplified her process as a result: "Faculty decisions, for example to utilize multiple platforms, frustrated students given the number of new technologies they were potentially being required to learn."

Indeed, student participants were overwhelmed by the influx of different online platforms and features being used in a seemingly ad-hoc fashion by faculty across different courses, or even within a single course. Many struggled to understand and recall what was presented and where, and how to navigate various systems to get to certain activities, from joining a live discussion group to submitting questions to faculty. Another challenge pertaining to platforms included the

[21] Means et al., 2020.; Fox et al., 2020.

lack of compatibility between the laptops that the institution had provided students for remote learning in the spring and numerous applications needed for teaching and learning, including the institution's primary LMS. This impeded student progress and posed additional challenges for faculty laboring to find ways to provide instruction that were both of quality and accessible to all their students. Across the board, students and faculty agreed that the institution's LMS was not very user-friendly and did not meet all of their needs.

The administration of online exams raised additional platform challenges and concerns, especially for courses that rely on closed-response assessments administered to large groups of students. Many students felt that the way tests were formatted by faculty did not set them up for success. On the other hand, faculty struggled to identify adequate platforms that ensured academic integrity. Faculty who taught skill-based courses, such as art, had to seek out platforms that recreated classroom experiences and wanted support in locating those more obscure resources. The additional workload that faculty had to take on in locating content-compatible online platforms is further discussed in the "Faculty Experiences" section.

Perceptions of Institutional Support

Similar to previous studies, we found that the unique challenges of the pandemic led both students and faculty to require more support from their institutions, especially around technology and mental health.[22] Following the emergency shift, students and faculty looked to the institution to support them in navigating the new technological demands that were thrust upon them. While both groups acknowledged the institution's efforts to meet their immediate technology needs, they pointed out a few shortcomings. For example, even though the institution quickly launched a program through which students could obtain technology equipment to support their learning, some students did not take advantage of the program because they worried that the process would be slow and leave them behind in their coursework. Others who took advantage faced technological compatibility challenges. While faculty agreed that their IT departments were extremely supportive in helping them with ongoing troubleshooting and understanding the functionality of available tools, some noted that they didn't receive the same level of support in transitioning their courses online and navigating new legal challenges that arose from teaching remotely, such as ensuring academic integrity and protecting their intellectual property.[23] This led to a substantial increase in individual faculty workload. Subsequently, faculty called for acknowledgement and compensation for their increased workload as well as better professional development and equipment support.

[22] Means et al., 2020; Betancourt, 2020; Fox et al., 2020.

[23] For a majority of surveyed institutions in Garrett et al. (2020), faculty spearheaded course design during the emergency shift to digital learning, with only some colleges and universities offering more formalized support for the translation process via the institution and/or departments. This means faculty members were exercising the same amount of independence they did with in-person instruction but in a context few of them had previous experience in. The prevalence of agency and lack of formal support to assist with course redesign was substantiated by our focus group findings.

> Faculty and students alike related an acute understanding of how the pandemic and the coinciding racial justice movement impacted their mental well-being.

In addition, faculty and students alike related an acute understanding of how the pandemic and the coinciding racial justice movement impacted their mental well-being, and shared a desire for more mental health support from their institution. Students intimated feeling isolated and overwhelmed in general, and some felt that the institution did not adequately offer or communicate about mental health services, especially for particular subgroups of students who were disproportionately impacted by the pandemic. Faculty, too, were grappling with their own mental health difficulties as well as that of their students, and conveyed a desire for more comprehensive mental health services for themselves and their students, as well as professional development around trauma-informed pedagogy to support their students. One faculty member commented, "The area I believe needs more thought is how to help students emotionally, how to help them deal with feelings of depression, being overwhelmed, [and] loss of motivation."

Many of our focus group participants felt that existing support services were not as accessible to students after the emergency shift. For example, students expressed frustration about student support services, such as financial aid and registrar offices, not being responsive to their questions or needs that arose during the pandemic. With no in-person option available, some students felt that their hands were tied. Students who had come to depend on advisors and tutors prior to the shift found it difficult to locate these services online, and when they could, their experience did not meet the expectations based on prior in-person services. This was particularly true for content-specific support services such as STEM remediation services. Additionally, recent transfer students who had not yet gained a clear picture of how their institution's services work had an especially difficult time understanding how to navigate and access these different services. Due to the perceived reduction in services and range of learning experiences, many students believed that tuition should be reduced accordingly. In fact, similar requests are being made by students and their families across the higher education institutions in the US as many classes and services continue to stay or move online.[24]

Student Experiences

A total of 46 students from across the institution's multiple undergraduate colleges participated in the focus group interviews. From this diverse array of perspectives, students' experiences constellated around several key themes that are discussed in detail below. See table 1 in Appendix A for more information about the student sample.

[24] College Pulse and The Charles Koch Foundation, "COVID-19 on Campus: The Future of Learning," *College Pulse and The Charles Koch Foundation,* 2020, https://marketplace.collegepulse.com/img/covid19oncampus_ckf_cp_final.pdf ; Shawn Hubler, "As Colleges Move Classes Online, Families Rebel Against the Cost," *New York Times*, August 15, 2020, https://www.nytimes.com/2020/08/15/us/covid-college-tuition.html.

Faculty Preparedness

Previous research found that students did not hold faculty responsible for the decrease in course quality following the emergency shift to remote learning, though there was a drop in student satisfaction with their overall learning experience, which was related to faculty preparedness for online learning.[25] Our focus group participants echoed these sentiments. While students were largely sympathetic to faculty members' predicament with the sudden shift to remote learning, they highlighted the differences in faculty preparedness in that regard and linked positive experiences with faculty who were more adept at using technology as an instructional tool. Unsurprisingly, they characterized faculty with prior online teaching experience as more organized in their course implementation. As one student said, "I was fortunate to have two professors that were . . . prepared. For them to make the shift to virtual was no big deal. They were ready to use the LMS, message boards and so on." Some faculty also incorporated Zoom office hours where students could talk about content and non-academic topics. Students noted that faculty who tailored their approaches and expectations to the online context, compared to those who appeared to simply transport their in-person classroom expectations and practices to the virtual context, created a smoother transition to remote learning for students in the spring.

On the other end of the preparedness spectrum, students described faculty who were not prepared to make the necessary adjustments to their pedagogy for the online context. Manifestations of this ranged from ineffective instructional practices that were not engaging to disorganization or complete disappearance. One participant explained,

> *I feel like a lot of professors were not used to using [technology] . . . I had two out of my five professors [who] actually continued teaching. The rest just gave us homework and then a final. So, that was really challenging, because I feel like I didn't really learn much this semester because I feel like a lot of the professors weren't really trained in using technology, and it was really kind of disappointing.*

In these situations, it was not just students' quality of learning that suffered, but also their motivation, enjoyment, and focus. As explained in the "Faculty Workload" section, where students saw lack of preparedness, faculty were likely scrambling to pull together various platforms and practices to move their or their colleagues' courses online. In some cases, faculty had fallen ill or were facing their own pandemic-related challenges, separately from or in addition to technological challenges. Students recognized that faculty were learning along with them, but remained apprehensive as to whether faculty preparedness would improve in the coming semesters and what this would mean for their continued learning experience.

Social Aspect of Learning

In other studies conducted during the spring 2020 term, students reported that their ability to work with peers, maintain interest in classwork, and feel a sense of belonging in the campus community all suffered during the emergency shift to remote learning.[26] Students who

[25] Means et al., 2020.

[26] Blankstein et al., 2020; Means et al., 2020; Betancourt, 2020.

participated in the present study also underlined the negative impact the emergency shift had on the social aspect of their learning experience, which had repercussions on both the academic and socioemotional levels. Interactions with faculty and other students are an integral part of learning for college students. One faculty member underscored the importance of interaction for the acquisition of knowledge, "I believe the courses must be as interactive as possible, even in large group classes. Students need to be able to have a voice in their learning, not just receive information." But the organic nature of these interactions was lost in the emergency remote learning context, as the points of contact themselves slowed or disappeared completely in some cases. In-person communication with faculty and other peers during or outside of class time provides students with opportunities to add upon and remediate their content knowledge. For the most part, however, communication with faculty and peers in spring 2020 was slower and more restricted than it had been on campus.

> Students . . . also underlined the negative impact the emergency shift had on the social aspect of their learning experience, which had repercussions on both the academic and socioemotional levels.

Several students missed being able to run questions by their peers and build on their knowledge.

> *What was missing . . . was talking to your classmates. That's missing, having conversations with your classmates, running questions back with them and exchanging ideas. [The courses in the spring] had message boards, but a lot of people didn't really utilize the message boards.*

Most felt that these missing pieces meant they weren't learning as much as they would have in person. It also meant they were doing more self-teaching than they otherwise would.

The decrease in opportunities to connect with other individuals attached to their institution had other ramifications beyond academic performance.[27] For instance, students noted that talking with other students was integral not only for gaining content knowledge, but also for gaining valuable institutional know-how. The few recent transfer students in our sample were particularly aware of having missed out on a chance to build a network prior to moving online and of their continued disadvantage in that regard in the online context. Students across the board appeared to crave opportunities for connecting with their peers outside of their class times in ways that felt authentic and organic. Some students were acutely aware that exchanges with faculty members also work as networking opportunities that can lead to mentorship, needed recommendation letters for pursuing graduate studies, or internships in the near future.

[27] For example, see Michael B. Horn, "To Succeed, College Students Need Schools To Measure, Prioritize Building Networks, "Forbes, July 23, 2020, https://www.forbes.com/sites/michaelhorn/2020/07/23/to-succeed-college-students-need-schools-to-measure-prioritize-building-networks/#48e129391665. This article affirms students' concerns about reduced social interaction, by describing the importance of relationships with peers and faculty in ensuring student persistence and opportunity. This is especially salient for marginalized students. Subsequently, the article recommends that colleges and universities actively measure student social networks, which may be even more integral in the present circumstances.

Creating these exchanges felt more formal and much more difficult to achieve in the online context than they did in-person.

When faculty were available to communicate with students about course content among other things, or used online breakout rooms where students could connect with others in smaller groups, students reported having a more positive online learning experience. In the "Faculty Experiences" section, we describe how faculty extended themselves to make themselves available to students in a sustainable way and creatively create opportunities for peer-to-peer interaction in these unique circumstances. The need for connection with peers and faculty was certainly exacerbated by the social distancing restrictions put in place to slow the spread of COVID-19, though online learning itself can make person-to-person connection difficult in general for students who have not deliberately signed up for it.

Designated Learning Spaces

Finding a quiet place to work is a consistent challenge mentioned throughout the nascent COVID-19 literature.[28] This issue of space was also thoroughly expounded upon by student focus group participants in the present study. Throughout the focus groups, students highlighted the importance of having a designated space for learning that is free of distractions and fosters a sense of accountability. When such a space was absent, it impeded students' ability to stay motivated and focused on their coursework. The following quote captures the general difficulty most students expressed in being able to be as productive at home as they were on campus:

> *When you're in a classroom you're going to be more focused on what you're being taught because that's going to be right in front of you. Whereas if you're in your house you're going to be like "Oh, let me do this, let me do this," and you're not going to be actually focusing on what you have to learn. And at that point, your education turns [from] let me learn everything I can to let me just get the grade I need to pass.*

This challenge is likely a result of students' unfamiliarity with online learning, incompatibility in some cases, and the stay-at-home order that severely limited students' ability to seek out designated study spaces. Most students had signed up for in-person classes upon registering for spring 2020 courses, and this was their first experience with fully online learning. Accordingly, many noted discovering they were not well-suited for online learning. While learning from home, students were faced with distractions that do not exist in the classroom or their prior housing setup. Some students resided in or relocated to full houses where it was difficult to find a quiet, private space to attend class or complete assignments. Others were faced with the task of engaging in childcare and work-from-home alongside their online coursework. For these students, sharing both technology and physical spaces with others made it difficult to keep up with the demands of their coursework. A few students also felt that the lines between schoolwork and their personal space and time, including those for study and sleep, were blurred. The ability to turn their cameras off further enabled blurred lines between the two as students could "attend" class from their beds upon waking up. As such, even students with significant

[28] Fox et al., 2020; Means et al., 2020; Blankstein et al., 2020.

commute times expressed that they would rather spend the time commuting to regain the quality of focus they were able to obtain on campus.

Consistency and Flexibility

A salient theme across all student focus groups was participants' desire for both consistency and flexibility around course expectations, requirements, and engagement. Specifically, several students advocated for a set of common expectations put in place for faculty around pedagogy (for example, creating regular opportunities for students to interact with faculty and other students synchronously, responding to students' inquiries and requests within a reasonable timeframe, etc.) in order to elevate best practices in online learning and maximize a level of consistency and uniformity across course offerings. One student noted,

> *I just feel like things need to be kind of uniform across the board for all professors . . . So we should all be able to have a similar experience. It's not going to be perfect, but at least something somewhat uniform.*

A level of uniformity would mean that students would have a sense of what to expect from their coursework during otherwise uncertain times. Participants wanted some form of standardization or expectations for communication with faculty and online pedagogy that would allow them to be more prepared to meet the expectations set for them. While this increased need for consistency are likely a product of the challenges presented by learning during a pandemic, setting clear expectations and guidelines are certainly a good practice for implementing any online courses, as one student said,

> *The spur of the moment stuff really throws us off balance, and we need to be well-equipped for what's ahead . . . If we know what's coming, then we can prepare our minds, our bodies, our schedule, and for those of us with children, especially that, because it's very hard to find a good time. If we know what's coming, we can arrange our schedule so everything can coordinate.*

While seeking this consistency at the system-level, students responded very positively to increased flexibility on the part of individual faculty and their colleges, and expressed their desire to have that flexibility extended for the coming year as they individually deal with the consequences of the pandemic.[29] A majority of students had faculty who were accommodating with deadlines and expectations after the emergency transition to remote learning, and they pointed to these adaptations as especially helpful during the spring 2020 term. Furthermore, many students greatly appreciated having asynchronous components to their synchronous

[29] A recent large-scale survey of students at large, public research institutions found that students of color and those from lower socioeconomic backgrounds have been more likely to suffer hardships due to the pandemic and are in need of support from their colleges. See Greta Anderson, "More Pandemic Consequences for Underrepresented Students," *Inside Higher Ed,* September 16, 2020, https://www.insidehighered.com/news/2020/09/16/low-income-and-students-color-greatest-need-pandemic-relief.

courses, especially the ability to access recordings of past lectures and alternative ways to complete course requirements.[30] One student noted,

> *I had one professor where she gave us two options, asynchronous and synchronous classes. So, I think that was really helpful for us, because not all of us are going to be able to adapt to the new environment. So, some people if they can't make it they can just watch the recorded lecture, while others can just join the class and it doesn't have any effect on our grade. And, I think that's really helpful to our learning.*

Beyond course-level flexibility, students also wanted to see adaptations made to financial aid requirements, enrollment deadlines, and other institutional policies dealing with the completion of their coursework. For students with increased work and/or family responsibilities due to the pandemic, it was difficult to maintain the enrollment requirements of particular financial aid policies. As both individual and institutional plans could change abruptly, students required more time to make enrollment decisions and less punitive repercussions for having to drop classes.

Students were also flustered about the uncertainty that colored the future. While they greatly appreciated the flexibility provided by the institution that allowed them to decide whether the courses they took during the spring 2020 term counted for credit or not, many were uncertain about its long-term consequences. Some students also expressed a desire for the institution to be clearer and swifter in its communications about next steps regarding the handling of the pandemic, as their individual campuses could not move forward with a plan without the larger institution communicating rules and regulations. These uncertainties, along with the reality of the pandemic, led to compounded feelings of anxiety and lack of motivation for many students throughout the semester.

Faculty Experiences

The 37 faculty members from the institution that participated in the focus group interviews taught students at varying stages of degree progress in both practical and theoretical courses across the humanities, performing arts, social sciences, and natural sciences. From this diverse array of perspectives, faculty experiences constellated around several key themes. See table 2 in Appendix A for more information about the faculty sample.

It is important to note that, in addition to navigating their increased workload and shouldering some of their students' challenges, as described in more detail below, many faculty members also confronted personal hardship. Some fell ill and even taught through COVID-19, while others witnessed family, friends, and students facing hospitalization or death. Faculty, like students, took on increased caregiving responsibilities and, in some cases, struggled to find private space to work and teach. At least three participating faculty members took over teaching

[30] While research exists arguing against asynchronous learning, there is also research supporting the model. Asynchronous learning that is well designed in a thoughtful way can be a valuable tool in helping students succeed. See Madeline St. Amour, "The Moment is Primed for Asynchronous Learning," *Inside Higher Ed*, September 16, 2020. https://www.insidehighered.com/news/2020/09/16/dont-dismiss-asynchronous-learning-experts-say-improve-it.

responsibilities for colleagues who fell ill or faced other hardships that precluded them from completing the semester. In sum, all the institution's faculty members whom Ithaka S+R interviewed assumed additional responsibilities to meet the challenges of the spring 2020 semester.

This life-altering experience left the faculty with a strong desire to "debrief" with others, including their peers, and the desire for recognition of their hard work and dedication. The focus groups helped serve this function for participating faculty, who expressed eagerness to participate and shared freely with the researchers and each other during the focus groups. In fact, there was a waitlist for participating in the faculty focus groups, and a few participants contacted the researchers after the interviews to thank them for the opportunity, one of them referring to it as "free therapy." Faculty were also quick and eager to respond to follow-up inquiries from the study researchers, including a request for volunteers to conduct a member check of the reported findings (see Appendix A for more details).

Faculty Workload

Both the rapid transition to full online instruction and the emergency situation created by the pandemic thrust additional taxing demands on faculty, including acclimating to technology and online instruction, and supporting their students and peers.[31] Almost without exception, faculty in our focus groups reported that their job responsibilities increased in volume and scope during the spring 2020 term.

Acclimating to Technology and Online Instruction

As mentioned above, moving online was especially onerous for faculty who did not have prior experience teaching online and those who had not previously incorporated the institution's LMS into their instruction. Those faculty members who first adopted the LMS at the start of the transition invested time and effort into becoming familiar with the software and communicating its properties to their students. "While we were driving, we were actually learning how to drive," one faculty member explained in reference to their technological learning curve. The simultaneous creation and implementation of online courses faced by some faculty explains the lack of preparation perceived by students.

> "While we were driving, we were actually learning how to drive"

Researching online instruction and software also added to faculty members' workload. Faculty in our sample cared deeply about offering high quality instruction, and all but the most seasoned online instructors dedicated outsized effort to moving their courses online. In addition to reading books and other materials outlining general best practices for online teaching, faculty researched and implemented specialized resources, tools, and strategies to accommodate their specific course content and learning objectives. Many faculty members reported reaching out to

[31] Fox et al., 2020; A faculty member writing for *Inside Higher Education* described how faculty members worked to share best practices and ideas with each other; see Doug Lederman, "We're All in This Together," *Inside Higher Education,* June 17, 2020, https://www.insidehighered.com/digital-learning/article/2020/06/17/pandemic-driven-teaching-pivot-drives-surge-sharing-among.

their departmental colleagues or professional networks to problem-solve pedagogical challenges specific to their disciplines, such as simulating patient care for nursing students or facilitating choral singing. Some of the resources these disciplinary networks discovered and shared contributed to the inventive patchwork of software solutions as mentioned in the cross-themes above.

Even faculty whose disciplines offered fewer practical challenges researched or developed digital artifacts to enhance online content delivery. For instance, instructors whose students relied on cellular phones for internet access sought out or made YouTube videos that could be shared within the LMS, via email, and viewed outside of the LMS (which is not mobile friendly). Faculty members whose class sessions typically consisted of synchronous seminar discussion found or recorded engaging and challenging new digital materials for students to view asynchronously. With little lead time, professors annotated their existing slide decks and converted their lectures into podcasts or videos. Testifying to faculty members' increased workload during the spring 2020 term, one instructor intimated, "I had really good results, but it was a lot of personal investment [...] One thing that [the institution] needs to understand is that [moving courses online] is very time consuming."

Supporting Students and Peers

Supporting their students and peers also strained faculty members' workloads.[32] It was apparent from faculty responses that they firmly believed in the importance of providing these supports no matter the cost, but, at the same time, that the amount of energy and emotional work they exerted during spring 2020 is not sustainable in the longer term. Regardless of whether faculty were adapting to the new demands of online instruction, they invested an atypical amount of time and energy into communicating with their students. "I don't know how anybody could have kept up [with email correspondence] if they had four classes," exclaimed one instructor with a partial teaching load that spring. Faculty members communicated with students across many channels and media, including university email, personal email, personal cell phone, Google Voice, text messaging, WhatsApp, Facebook, Zoom, Slack and other video conferencing software. Instructors provided direct academic support outside of their normal office hours and, as mentioned above, supplied technical support far beyond what they would offer in a typical semester, particularly to their adult or economically marginalized learners.

> "Professors not only were social workers to their students, but also to each other."

Some degree of increased communication also stemmed from faculty's "whole person approach" to supporting students through hardship. Many faculty members in our study acted as intermediaries between the administration and their students; they proactively conducted outreach via email and phone to ensure that students were aware of university policies and

[32] A faculty member writing for *Inside Higher Education* explained that students were reaching out to professors for more socioemotional support; see Vicki Baker, "How Colleges Can Better Help Faculty During the Pandemic," *Inside Higher Education*, March 25, 2020, https://www.insidehighered.com/views/2020/03/25/recommendations-how-colleges-can-better-support-their-faculty-during-covid-19.

resources. Without exception, faculty members expressed concern for their students' well-being, and many described going to great lengths to contact, motivate, and accommodate overwhelmed or ill students. In some cases, faculty reported feeling like "social workers" who were on the front lines of student care. The pressure that faculty felt to support students emotionally as well as academically resonates with findings from students, who desired more mental health support and high-touch advising from the institution. Faculty were offering similar support to each other, as one faculty member commented, "Professors not only were social workers to their students, but also to each other." Faculty supported each other both at the emotional and professional levels, which is discussed in greater detail in the "Institutional Community" subsection. The apparent increase in the types and frequency of communication between faculty members and students, along with faculty's overall increase in workload, helps explain the variance students experienced in faculty responsiveness to email.

Teaching Support

Participating faculty described how information technology centers and individual departments across the colleges mobilized to provide faculty with LMS training and other IT support.[33] Most faculty commended the quality of this technological support, though a few felt differently—stating that these tutorials felt sparse or piecemeal and rarely surpassed the instruction available directly from the websites of the various software. On the whole, however, it seems that faculty had reliable access to tech support and adequate, if not comprehensive, tech training. Some faculty, in turn, transmitted tech support to their students, as mentioned in the section on faculty workload above.

Conversely, many faculty participants expressed regret about the dearth of online pedagogy training at the department or administration level:

> *I would have loved... some pedagogical help. There were workshops on how to use [the LMS], how to create assignments and quizzes, which is all good—I need those nuts and bolts—but it also would have been helpful for me to know how to frame my content so that it . . . work[ed] a little bit better on a virtual platform.*

The desire for evidence-based online pedagogy instructional support recurred across focus groups. Some participants sought out pedagogy training themselves in the months since the spring 2020 term ended. We spoke with several faculty members who voluntarily enrolled in uncompensated professional development courses on eLearning and online instruction. At least one college had created a mandatory professional development workshop for instructors teaching in the summer session, but faculty again complained that this workshop prioritized technology over pedagogy and failed to offer subject area-specific solutions. One focus group participant stood out as feeling especially supported in that regard, and credited help from their college's Center for Teaching and Learning in revamping faculty syllabi for online instruction with salvaging the spring 2020 semester.

[33] Fox et al. (2020) also found that Faculty identified their institutions as the most helpful resource during the transition, suggesting that institutional offerings were salient supports utilized by faculty.

> These faculty members believe that training in trauma-informed pedagogy is critical to meeting the demands of the moment and the needs of their students.

While many faculty members registered a clear desire for more online pedagogy training, others relished the opportunity to experiment and drive their own strategy for moving their teaching online. In both cases, numerous faculty highlighted the need for trauma-informed pedagogy training. Many faculty felt underprepared to teach through the simultaneous traumas of COVID-19 and the racial justice movement sparked by the murder of George Floyd late in the spring term. These faculty members believe that training in trauma-informed pedagogy is critical to meeting the demands of the moment and the needs of their students. Students also expressed a desire for their humanity to be more explicitly acknowledged during these trying times. One professor encouraged the institution to investigate "how learning ... happen[s] in traumatic environments," and to prepare faculty to teach through ongoing national and global crises.

Course Design and Delivery

The transition from in-person to online instruction, and widespread uncertainty about best practices for online pedagogy, stoked faculty concerns about academic quality and rigor. Faculty sought a balance between maintaining academic standards and responding to student hardship with flexibility and understanding.

Many faculty participants, though not all, reported drastically lightening their course workload, changing assignments to more suitable formats given the stay-at-home restrictions, and/or being flexible with assignments and deadlines in general. One seasoned faculty member summarized:

> *I would definitely say that this was not commensurate to any course I've ever taught in terms of covering the learning objectives all the way [or] in terms of skills practice . . . Many times I pivoted in the course . . . and stripp[ed] down to the barest essentials of our learning objectives.*

These curricular changes were in part motivated by faculty's understanding and sympathy towards student hardship during the pandemic. For instance, one faculty member noted,

> *I had students [who] did not have computers or internet. Others had to share computers with other family members. Many worked in grocery stores and were told they were essential workers. They were given additional shifts and could not keep up with their [course]work. Some lost multiple family members. Some became the primary breadwinners in their home when their parents became ill.*

Across faculty experiences, it was difficult to ascertain the degree to which the pandemic and student technological limitations influenced changing faculty expectations. Therefore, it is challenging to predict how faculty might adjust their syllabi and content for future online semesters. While many faculty reported lightening the volume of their course workload and

changing the format of assignments for online instruction, a minority of professors assigned more work. These faculty members wanted to ensure comparable academic attainment between students who learned on campus in past semesters and those now learning at home, highlighting a pervasive assumption that quality of learning is higher in in-person contexts than in remote contexts. They also sought to prepare advanced students for upcoming licensing and certification exams. The student focus group findings suggest that different students benefited from, or were disadvantaged by, these contrasting approaches to course design and delivery. More research is required to untangle its complex relationship with differential student outcomes.

As discussed in the cross-themes above, the administration of exams was a major pain point for students, and student frustrations reflected faculty's struggles to move assessment online.[34] Some departments mandated that faculty administer standardized, closed book exams across sections. Instructors of these courses worried that they were setting students up to cheat by conducting closed book exams without adequate proctoring. In fact, numerous faculty reported feeling "betrayed" by students who plagiarized online material or recorded correct answers with wrong or insufficient supporting work, forcing their professors to report them for academic dishonesty and alter their practices for all students as a result. Many faculty believed that a proctoring software would help students succeed, but webcam monitoring add-ons to the LMS, such as Respondus, raised privacy concerns.

> The administration of exams was a major pain point for students, and student frustrations reflected faculty's struggles to move assessment online.

Most faculty are seeking clear guidance from the institution regarding administering and proctoring exams, especially closed book exams.[35] Some instructors also expressed frustration that the institution could not prevent students from posting and distributing digital versions of faculty intellectual property, including exams and quizzes. Professors who were able to emphasize creative over traditional assessment reported more satisfaction and student success. Some instructors reconfigured exams to be open-book or to test problem-solving over memorization. Other faculty members deemphasized exams and shifted course grades towards participation, projects, and other modes of assessment. A number of faculty also modified expectations and employed "compassionate grading" schemes in recognition of student effort amidst hardship. Some of these strategies, however, were difficult or impossible to deploy in some applied science courses.

Relatedly, a small number of faculty feared that student opportunism may have been at play. They believed that students invented technological difficulties as an excuse for poor performance. For instance, some professors doubted students' claims that they were kicked off

[34] Ibid.

[35] Heightened concerns pertaining to academic misconduct and implementing secure assessments were reflected in the literature (Wiley, 2020; Fox et al., 2020)

of Wi-Fi during exams or that their work was lost in the uploading process. Select faculty who taught synchronously expressed frustration with students' inability or unwillingness to participate by turning on their cameras. One faculty member noted,

> *Faculty found it difficult to distinguish between genuine technological problems students had from invented ones at strategic times. Students could randomly drop out of synchronous meetings. The lack of accountability created a lot of stress.*

By and large, however, faculty concern about academic integrity involved frustration with adapting to online instruction significantly more than frustration with student conduct. Many recognized that the change in modality was difficult on students, and that the shift in and of itself may have affected students' perceptions about their course workload, even when faculty kept the number of learning tasks commensurate with a face-to-face environment.

Student Engagement

As discussed earlier, faculty observed the impact of the pandemic on students from a uniquely close vantage point. Nevertheless, like faculty members elsewhere, student engagement set forth an especially difficult challenge for faculty participants in the present study.[36] Instructors were acutely aware, and at times surprised by, the challenges in their students' lives that made it difficult for them to remain engaged in coursework. They related how many students took on increased caregiving responsibilities for their own children or other family members, many held jobs as emergency or essential workers, and that some students shared laptops and physical spaces with other members of their household. Instructors' challenges keeping students engaged both confirm and complement findings from the student focus groups. They highlighted their concerns pertaining to negative impacts on vulnerable students in particular, and on student retention and motivation.

Faculty described how, in the move to emergency online instruction, struggling students struggled more. Non-traditional students and adult learners for instance, many of whom had not used technology in their secondary education, were vulnerable to waning engagement. Neuro-diverse students and those with learning disabilities such as ADD also struggled with the transition to online instruction, as they required additional or unique setups that faculty members were not capable of providing. This faculty theme echoes widespread national attention to the ways in which COVID-19 magnifies existing inequalities. Inequities surrounding digital access were also pronounced.[37] Waning student engagement because of inadequate internet access stood out as an extremely important sub-theme in the faculty focus groups. By virtue of the virtual focus group format, students who participated in this study were more likely to have reliable internet access, and thus unlikely to complain of connectivity issues. However, faculty across disciplines believed that internet access was a pervasive problem in general, and particularly for participating in synchronous instruction. Some students' only internet access

[36] Fox et al. 2020.

[37] Despite the ubiquity of online activity, disparities in access to broadband internet persist by age, race, income, education, and geography. "Internet/Broadband Fact Sheet" Pew Research Center, 2019, https://www.pewresearch.org/internet/fact-sheet/internet-broadband/.

was on their phones, sometimes with data limits that cut them off completely part-way through a given month. Even those students who had internet access at home struggled to stream recorded videos or to participate in synchronous instruction.

Faculty shared their concerns about student retention, particularly for students that could not be reached by any means (e.g. their email addresses and phone numbers on record were not functional or correct). They estimated retention rates anywhere from around half to nearly full retention. Instructors believed that they lost students who took on new jobs in essential work (such as daycare) and students who could not commute to their home campus to pick up loaner technology. Later in the term, class participation and retention further declined as students fell ill with COVID-19 or dealt with sickness and death in their families. "Students who were doing phenomenally came down with COVID [and] disappeared from my class," one professor lamented. Students who were closer to degree attainment seemed more motivated to persist in spite of challenges, and faculty who taught advanced undergraduates generally reported lower attrition than those who taught junior undergraduates, particularly freshmen. For the small percentage of participating faculty who taught graduate classes during spring 2020, graduate student participation and retention in their courses and fields remained robust.

> Faculty believe that replacing in-person structures of social accountability is crucial to successful online instruction.

In general, and due to the issues presented above, faculty were sensitive to the challenges the pandemic presented to student motivation: "Most students had a lot bigger fish to fry than writing an English paper," one instructor shared. Emergency circumstances notwithstanding, faculty believe that replacing in-person structures of social accountability is crucial to successful online instruction. While students in our study describe peer interaction as critical to comprehension, professors viewed it as equally important to motivation. Some faculty reported success with fostering a sense of community through WhatsApp groups. Others considered piloting buddy programs to reinforce student engagement in future semesters.

The Institutional Community

While the emergency shift to online instruction and the pandemic itself presented daunting challenges for faculty, they identified many strengths in the response of the institutional community. In spite of increased workload, many faculty members felt that the move online stimulated their creativity and helped them refine their learning objectives. Many noted that this shift, and subsequent exposure to new platforms and pedagogy, permanently changed their practice for the better. Faculty leaned on their professional networks and home departments to problem-solve collaboratively. In fact, during some of the focus group sessions themselves, faculty used the chat feature to share some of their preferred practices and resources, and applauded or comforted each other. Professors also voiced appreciation for campus IT services' responsiveness and patience. Finally, time and again, professors commended student resilience and dedication. Faculty engrossed themselves in teaching and student service, and they felt that their empathetic bond with students deepened in this time of crisis.

> In spite of increased workload, many faculty members felt that the move online stimulated their creativity and helped them refine their learning objectives.

Recommendations

Ithaka S+R researchers explicitly asked students and faculty to share recommendations they wanted to present to their institutions to help inform their plans for the fall 2020 term, and beyond, both at the system and local levels. Participating students and faculty exhibited notable insight and nuance in their understanding of the circumstances surrounding the spring 2020 term and relayed numerous recommendations for the future, many of which have already been taken up and were incorporated into the institution's reopening plans for the fall 2020 term. Below we highlight some of these participant recommendations that we feel are applicable to other higher education contexts and the field more broadly, along with our own recommendations that have emerged from this study and review of the relevant literature.

Technology, Resources, and Facilities

- Expand the number of available loaner laptops with built-in LTE or internet connectivity. Such investments must also ensure compatibility with the institution's existing learning management system and other key platforms and software that students need for their various coursework.
- Invest in additional software and subscription purchases, including secure and user-friendly exam proctoring services, to meet specific content and pedagogical needs of the campus community. Increase digitized library holdings and high-quality multimedia repositories to further help enhance student and faculty experiences with online learning and their subsequent outcomes.
- Create Wi-Fi hotspots in outdoor or other safe spaces across the city to provide internet access to students. These spaces might include campus parking lots as well as spaces provided through partnerships with local organizations and other educational institutions. Institutions with multiple campus locations can also offer Wi-Fi access to affiliates irrespective of their home campuses.
- Create a virtual faculty office hours system that is streamlined, effective, and user-friendly. Consider investing in compatible platforms and tools that support this goal, such as scheduling software that allows users to schedule appointments directly without any email exchange, and web-based telephone tools for faculty to connect with students with limited internet or computer access.

Student and Faculty Support Services

- Create co-teaching models or an optional faculty peer system, whereby seasoned online faculty can pair with novice online faculty in their respective disciplines. Establish a clear set of guidelines and best practices for online instruction more broadly, and proctoring exams specifically, at the department- and institution-levels.
- Provide faculty with additional training around online pedagogy and best practices, in addition to general technology training. Include specific targeted topics that would be especially valuable during the pandemic and beyond, such as those on asynchronous pedagogy and trauma-informed pedagogy.
- Increase student access to online tutoring support, dedicated academic advisors, one-credit hour learning communities, and counseling services to promote student academic success and wellbeing. Consider innovative approaches to student outreach that also increase community building, such as a virtual student union.
- Engage alumni networks and other professional groups across the nation to create an undergraduate mentoring program.
- Create opportunities for students to form meaningful relationships with faculty and/or experts in their respective fields of study not only to gain content knowledge but also build networks to advance their educational and professional careers.[38]
- Invest in identifying, re-engaging, and further supporting students who may have been left behind because of the emergency shift in an effort to promote equitable access and success for all students.[39] Draw on historical data to identify those students, or subsets of them, and offer them opportunities to re-enroll in accelerated coursework with additional support as needed.[40]

[38] For additional recommendations regarding building community in the midst of the pandemic see: Justin Beauchamp, Emily Schwartz, and Elizabeth Davidson Pisacreta, "Seven Practices for Building Community and Student Belonging Virtually," Ithaka S+R, August 27, 2020, https://sr.ithaka.org/publications/seven-practices-for-building-community-and-student-belonging-virtually/.

[39] Although we could not recruit disengaged students or the most disadvantaged students (and there is likely a significant overlap), the faculty interviews point to subgroups of students whose academic trajectories were fully disrupted by the pandemic. Faculty felt that students who were already less privileged or advantaged in the higher education context, but equally motivated and capable than their peers, were the ones left behind - such that the pandemic further compounded student disadvantage and widened historical inequities.

[40] Accelerated coursework can be provided through partnerships with other higher education institutions or providers if needed (e.g. Acadeum and StraighterLine).

Institutional Communication and Policies

- Establish mandatory communication guidelines and timelines in place for responding to students for both faculty and student support staff, and incentivize adherence to them. Share communications around changing policies with students in a clear and coherent manner.[41]
- Prioritize moving applied courses and/or courses with traditional high fail rates back on campus once feasible. More weekend classes can be offered for the duration of the pandemic to accommodate students and faculty whose childcare or work responsibilities have increased. Accurately specify the instruction and delivery method in the course catalog and syllabi, so students can make informed decisions about their learning.
- Celebrate and capitalize on remarkable faculty and staff who are key assets for the institution, both in terms of leading and innovating during the next phases, and transforming students' experiences. Engage a set of those faculty and staff in building and supporting new systems and practices, with adequate professional and financial compensation.
- Cultivate dialogue between the institution and its various stakeholders, including students, faculty, and staff through regular debrief sessions to outline the decision-making process and trade-offs made. Such dialogue can also be used to publicly recognize faculty and staff members' efforts, and identify areas where additional support and training would be needed.

Conclusion

The experiences of students and faculty at the institution and elsewhere during the spring 2020 term highlighted mostly known or anticipated issues - though, unsurprisingly, institutions and their stakeholders were not prepared or equipped to address them during the initial emergency pivot: (1) there is no one magic bullet solution for supporting students and faculty—an integrated, contextualized, holistic, and adaptive approach will be needed to truly support students and faculty and (2) solutions that may have worked well in traditional, in-person settings cannot be simply transported to the virtual setting. Moving instruction and other services online poses a number of unique challenges and constraints (e.g. motivation, focus, accessibility etc.), and the abrupt nature of the shift made the transition more onerous in the spring 2020 term. The immediate and longer-term implications of the pandemic on people's lives and livelihoods further complicated the remote learning process for students and faculty. Because many institutions, like the one featured in the present study, did not have a robust virtual infrastructure that could effectively fulfill these demands, it was difficult for them to quickly and creatively respond to the evolving needs of students and faculty outside of the practices and processes already in place during the spring 2020 term. Nevertheless, some of the challenges described and cited within this report have persisted into the fall 2020 term. Nationally, undergraduate students continue to harbor concerns pertaining to mental wellbeing, delays in graduation and other future plans, as well as their ability to be successful in the online

[41] See a recent blog post by Kimmy Cacciato, a graduate student at the College of New Jersey, about some ways institutions can provide concise information that students can easily navigate during these unpredictable times; Kimmy Cacciato, "What Your Students Want to Hear: Effective Communications in the Time of COVID-19," *Ithaka S+R,* September 3, 2020, https://sr.ithaka.org/blog/what-your-students-want-to-hear/.

learning space.[42] As institutions are welcoming students back fully or partially online for the fall 2020 term and beyond, more intentional planning and internal evaluation will be required to gain a better understanding of how online instruction can be used in their unique settings to facilitate success for both students and faculty.

This study was exploratory in nature and offers the perspective of a subsample of students and faculty whose personal circumstances facilitated their participation in a synchronous pre-scheduled virtual video event—a group that may have experienced more favorable circumstances than their peers, on average, during the spring 2020 term. It was also conducted not long after the onset of an emergency shift that will likely have longer-term implications on the landscape of higher education that are not readily foreseeable. It is clear, however, that online education will continue to stay with us and likely play a greater role in the future. The disruptions caused by the pandemic have illuminated, and further exacerbated, the inequities in education both in terms of access and success. Nevertheless, there's a lot of potential in online instruction to provide flexible, on-demand, and modular learning experiences that can help individuals advance their education and career while navigating their complex lives and realities. As the field continues to grapple with this new challenge, and invent/reinvent systems and processes, we'll need to continually document learnings and glean actionable insights to help us navigate this uncharted territory.

[42] Strada Center for Consumer Insights, "Public Viewpoint: COVID-19 Work and Education Survey," *Strada Center for Consumer Insights*, October 15, 2020, https://www.stradaeducation.org/wp-content/uploads/2020/10/Report-October-15-2020.pdf.

Appendix A. Methodology & Sample

Recruitment of Student Participants

The institutional staff sent email invites to a random sample of 2,500 students from its population of undergraduates who had been enrolled in spring 2020 and were at least 15 credits away from requirements for their degree (and thus expected to enroll in college again). A total of 133 students signed up before focus group time slot quotas were filled. These students comprised a fairly representative distribution of freshmen (43 students), sophomores (43 students), juniors (25 students), and seniors (12 students), and were enrolled in a diverse set of approximately 20 majors.

For each of the nine student focus group time slots, students were grouped based on their college, and then on their major (applied/technical or non-applied/non-technical) to recruit up to ten students per focus group and ensure actual participation by five to eight students per group for three simultaneous focus groups across three sessions. Students were then sent a link to register for their assigned group.

A total of 46 students out of 78 registrants participated across the nine focus groups (59 percent), with four to seven students per group (see Table 1 for a breakdown by focus group), representing all of the institution's colleges and campuses. Although student participation was lower than initially anticipated given the recruitment strategy and research incentive offered, the significant internet connectivity and computer access challenges reported by even those who were able to participate suggest that at least some students were unable to join the virtual focus groups for those same reasons.

Table 1 - Student Focus Group Breakdown

Focus Group Make-up	Number of Student Participants
Applied or Technical major (mixed)	4
Applied or Technical major (mixed)	4
Applied or Technical major (Freshmen and Sophomores)	7
Applied or Technical major (Juniors and Seniors)	7
Non-Applied / Non-Technical major	5
All/Any major	4
All/Any major	5
All/Any major	6
All/Any major	4
Total	**46**

Recruitment of Faculty Participants

The institutional staff distributed email invites to faculty through the institution's Faculty Affairs Advisory Board, which includes faculty members from every campus in the system. The invitation was open to full-time and contingent faculty in every discipline and at every undergraduate college, and the invitation especially encouraged participation from instructors who taught lab, performance, or other typically "hands on" courses. Over 60 faculty expressed interest before time slot quotas were filled, and approximately 170 others signed up for a waitlist. Faculty were grouped based on their disciplines and availability to form groups of four to seven faculty members to fill nine focus group time slots. The disciplines were English (including Developmental English and ESL), fine and performing arts, health sciences, humanities, lab sciences, mathematics, public and social services, and social sciences. Each group included instructors from multiple colleges.

A total of 37 out of 48 volunteer faculty members (77 percent) participated across nine focus group sessions, with two to seven participants per group (see table 2 for a breakdown by focus group). Faculty participants represented 12 colleges, including 11 undergraduate institutions and one professional school. A total of 12 participants were adjunct/contingent faculty (32 percent). Faculty who signed-up for these focus groups expressed eagerness and excitement at the prospect, both in their prior communications and during the focus groups. Faculty reported a strong desire to "debrief" with others, including their peers, and the desire for recognition of their hard work and dedication. A few participants contacted the researchers after the interviews

to thank them for the opportunity, one of them referring to it as "free therapy." Those who did not attend generally offered their regrets ahead of time, citing schedule conflicts.

Table 2 - Faculty Focus Group Breakdown

Focus Group / Discipline area	Number of Faculty Participants
English	2
Developmental English / ESL	5
Health Sciences	5
Hard Sciences	3
Performance Arts	4
Social Good	3
Social Sciences / Social Good	5
Humanities	6
Math	4
Total	**37**

Virtual Focus Group Procedures

Prior to starting the focus group sessions, the project team conducted multiple preparatory trial runs of the software platform to practice sharing screens, sizing PowerPoint slides, and dividing the large group into smaller interview pods in an effort to preempt potential technical challenges and disruptions. At the beginning of every focus group session, the facilitator encouraged participants to experiment with their own settings to optimize the layout and ensure that audio and video were both working properly. A non-facilitator member of the project team also remained in the conference "waiting room" for the duration of the session to provide any technical assistance as needed. Despite these efforts to mitigate the technical issues that arose over the course of focus group sessions, a number of students experienced technical difficulties and were either unable to join via video or audio, were repeatedly disconnected, or had to drop out of the focus group part-way. In order to involve all participants with varying levels of technology access and capabilities, the project team offered a call-in option and encouraged participants to use the chat function. Follow-up email communication was also offered as another remedy to mid-session technology or internet problems.[43]

[43] For a more detailed account of how we conducted our own focus groups, see Christy McDaniel & Catherine Suffern, "Conducting Virtual Focus Groups: A Short Methodology Case Study for Social Scientists," *Ithaka S+R*, August 31, 2020, https://sr.ithaka.org/blog/conducting-virtual-focus-groups/.

In all 18 virtual focus group session introductions, the researchers acknowledged the emergency of the circumstances surrounding the shift to remote learning, and that the spring 2020 term did not represent typical online teaching and learning. Both students and faculty were asked to share how the spring term went for them, including successes and challenges, the support or tools they needed/received to help navigate remote learning by their institution, and recommendations for future terms. During the sessions, when possible, they encouraged participants to reflect both on the aspects of their experiences that may have been unique to the crisis at hand, as well as those that may be more specific to the online context more broadly.

Student Focus Groups

Student focus groups were organized over three sessions, with three parallel focus groups conducted during each session. At the start of each session, students were introduced to the study and the researchers, reminded of the information in the consent form they had previously signed, and given the opportunity to ask questions. Information slides were provided alongside the introduction, and students were encouraged to call-in or use the chat function if they experienced technical issues. Students were then invited to answer two poll questions as a group, rating their spring 2020 term experiences at large and identifying their greatest concerns for the fall 2020 term. Aggregate responses were shared with the group in real-time to help set the stage for the individual focus group interviews. Students were then placed in three separate focus groups breakout sessions, each led by two researchers, for focused small group discussion organized into the following sections, with relevant guiding questions presented on slides during the discussion: 1) Participant introductions and description of how the spring term went for them; 2) The supports or tools used or needed to navigate online learning; and 3) Students' greatest concerns and recommendations for the fall 2020 term.

Faculty Focus Groups

Faculty focus groups were more informal in nature than the student focus groups. Each session was led by two researchers, who briefly introduced the study and answered participants' questions. Faculty were invited to introduce themselves and summarize their experiences with remote emergency instruction during the spring 2020 term, and reflect on each other's responses. Guiding and follow-up questions asked faculty to reflect on creative solutions they may have employed and successes achieved, support provided to them and their students by their institution, and recommendations for future terms.

Data Analysis

The researchers took copious notes during the focus group sessions. After each session, they reviewed their notes for completeness and accuracy, and developed summary memos with analytic themes. Data analysis was conducted using open thematic coding, whereby the researchers identified themes across all interview notes and summaries, discussed them to further refine them, and then listened to the audio recordings of all interviews to confirm or adjust the themes and their content, as well as identify suitable quotes. Once the results were written-up in narrative form, the researchers reached out to all participating faculty inviting one

to two volunteers from each focus group to conduct a "member check" by reviewing the findings pertaining to faculty experiences for accuracy, completeness, and clarity. A total of 11 participants reviewed the document and provided written feedback to the researchers, which was incorporated in the final report. The reviewers did not identify any inaccuracies nor contest any of the reported findings, but validated the findings and in a number of cases provided additional nuance or perspectives, and made recommendations for improvements on the presentation of the findings within the document.