INTRODUCTION
The emergency adaptation of remote learning as a response to COVID-19 raised issues of access for students nationwide. Remote learning, also known as distance learning, existed long before the current crisis. In fact, distance learning programs have risen in popularity since at least 2002 (Allen & Seaman, 2019). A strength of distance learning is access – the flexibility for students to enroll in higher education without physically being on campus. However, distance learning programs still introduce issues of equity (Hildegard et al., 2008; Park & Choi, 2009; Roberts et al., 2011).

The current implementation of distance learning at the University of California, Santa Cruz is distinct from traditional distance learning programs. The current crisis left instructors with little time to plan, and left students unexpectedly learning from home (Czerniewicz, 2020; Hodges et al., 2020). Since the start of the COVID-19 crisis, there have been several qualitative studies about access during remote learning as an emergency adaptation. Some of these studies examine specific strategies for promoting access; others document faculty experiences (e.g. Adams & Wilson, 2020; Czerniewicz, 2020; Lowenthal et al., 2020). However, there is still relatively little research about students’ experiences with access during this time.

In the current project, we draw on students’ lived experiences to investigate both challenges and gains in terms of access to learning during pandemic-era remote instruction.

HIGHLIGHTS

- Emergency adaptation of remote learning as a response to COVID-19 raised issues of access for students nationwide.

- Students’ lived experiences revealed how pandemic-era remote learning limited and expanded access to social connections, learning space, learning materials, and class participation.

- Building meaningful learning experiences across contexts requires efforts to understand and meet students where they are.
METHOD

Research Team. The research team included a lead graduate student researcher and two faculty members, all whose research examines the strengths that minoritized children and students bring to learning. As experts in the areas of educational equity, learning, and development, the research team was motivated to understand how to better support minoritized students on campus.

Participants and procedure. Participants included 15 senior students (Mean age = 21.80, SD = 1.12) from minoritized backgrounds. They were primarily students of color (53.5% Latinx, 26.6% Asian, 13.3% White, 6.6% Black), first-generation-to-college (86.6%), from low-income backgrounds (66.6%), and female-identifying (86.6%). Participants were recruited through a senior seminar and a lab-based research course in the Spring of 2020. Drawing from data with only seniors provided a unique opportunity to learn from students who have had extensive experience with on-campus instruction and who did not anticipate or “opt-in” to remote learning. After completing a survey, participants took part in semi-structured, individual Zoom interviews, ranging from 30-60 minutes. The interview questions asked students to reflect on (1) changes in higher education, (2) experiences with pandemic-era remote learning, and (3) equity issues related to learning. The lead GSR and one faculty member conducted all interviews.

Coding procedure. Although there is extensive research on the benefits and consequences of remote learning, the emergency nature of remote learning in COVID-19 is not well understood. Thus, the research team utilized inductive methods to draw impressions from the data (Braun & Clarke, 2006). We took several steps to reach consensus in our constructions of themes. During and after conducting the interviews, the research team shared initial thoughts and reflections about patterns and distinctions in the interviews. The team then independently read the interviews and met repeatedly over 10 weeks to discuss the shared elements and differences in our observations. Next, the team met to organize these observations into patterns that related to access; from there, the team developed themes with this topic in mind.

KEY FINDINGS

Unprompted, students spontaneously shared four issues related to access. In each area, the emergency adaptation of remote instruction during the COVID-19 pandemic has decreased access in some ways, while increasing access in other ways.

Access to social connections and community. Participants expressed that access to social connections and community was limited by the difficulty of engaging in informal conversations with peers and professors inside and outside the classroom. One student shared, “Usually I would see people at school and we’d talk about the things going on and we’d have that space to talk about resources... Now ...unless you schedule a zoom meeting with your friends... it’s a lot harder to have those organic conversations with people.” However, the social climate created opportunities for students to humanize instructors as they went through the challenges together and as instructors made efforts to build classroom community, including intentionally discussing their own experiences with the pandemic. This has helped some students feel more motivated to engage in the course and/or more comfortable reaching out. For example, one student reported that she was more motivated to complete weekly quizzes because she felt connected to her professor: “My professor has been trying really hard [to build community] and I feel it has paid off... [having] insight into her life and knowing that she’s also struggling ... it helps me connect with her.”

Access to learning spaces. The term ‘learning space’ refers to students’ ability to inhabit physical and psychological spaces in which they can easily learn. Many students – across living situations – noted the difficulty of creating psychological
boundaries between home and school. In the words of one student, school and home life “meshed together.” This feeling was difficult for students to manage, and impacted their overall well-being, including stress levels, sleep, and time management. For example, one student said, “I would usually try to do everything on campus because it gave me that separation between…work and school and then my own personal life, right? Now being home, I feel like it’s all kind of just meshed together … It’s been harder to set those boundaries.” Whereas setting boundaries was hard for many students, for some students living with family members, finding a physical space for work was also challenging. As one student shared, “it is a little bit difficult because … since [my young niece and nephew] don’t have school, they’re kind of like around the house and they go to my room very often when I’m in a class meeting or trying to do schoolwork, and I feel bad [ignoring them] ....”

Yet, students also experienced support from family in negotiations around communal space in the home. The same student noted having his own physical workspace that was integrated with his family’s life. He shared, “But now that this transition has been going on, [the kids] seem to be a lot more understanding that like, ‘right now is homework time for my uncle.’” Even the youngest members of his family negotiated to give the student space for learning. Multiple students identified this kind of family collaboration as an asset for their learning.

**Access to learning materials.** In pandemic-era remote learning, class lectures, assignments, activities, and assessments are crucial resources that students need to access from home. Moreover, obtaining a fast enough internet connection to fully engage with learning materials is vital. This may be especially true for students living with large families in which many people use the internet at the same time. Although internet connection has been a barrier to access, there have also been access gains during this time. For example, as instructors increased the availability of course resources such as recorded lectures being posted on Canvas, students reported greater access to learning. One student said, “I was able to watch the lecture video on my own time. So if let’s say I have to watch my niece and my nephew, I can do that and then I can watch the lecture video later. So it helped kind of manage my time a little bit, being able to not have to worry about a certain time for that.” However, posting recordings without promoting adequate student engagement through discussion led to a feeling of decreased accountability and learning for some students. In fact, accountability was a common theme in the student interviews. Some students provided examples of how courses worked to maintain accountability and motivation through low-stakes assignments. One student stated, “Even if they’re not worth points, I think it’s beneficial just to keep on track. Like, okay, I need to stay focused because this is class time.” In this way, assignments may help students to access the class content from lectures and readings by providing incentive to focus on the material.

**Access to participation.** Students also spontaneously discussed their ability to actively engage in the remote classroom. Ability to participate has been challenged as students struggle to communicate with the screen. Some students were more hesitant to speak in class or breakout rooms, especially when other students seemed unengaged. One student shared, “I participated more in class when I was in-person because it’s not just a screen of people or a screen of just names… it’s more intimidating when you’re talking to just a screen that doesn’t have a face or it’s just a blank screen.” In addition, many students mentioned that not being able to see other students’ body language or facial expressions made participation difficult. For example, in a physical classroom, students could sense whether other students were confused. On Zoom, that ability to assess whether or not they were in alignment with peers was more difficult. To alleviate these challenges, several students mentioned that a stable membership of small groups for breakout
room discussion throughout the quarter helped them feel less awkward when interacting with others. Moreover, for students who find in-person participation in class activities to be anxiety arousing, the remote platform supplied them with the needed personal space, which in turn reduced the stress that typically arises when they had to participate in in-person discussion or give an in-person presentation.

**IMPLICATIONS**

Our findings highlighted how remote learning during the pandemic limits and expands access in four areas crucial to student success: social connection, learning space, learning materials, and participation. As we continue to adapt to a remote learning context and also prepare for a transition back into in-person learning, our findings highlight several recommendations for institutional practice centered on providing meaningful learning experiences.

1. **Focus on community-building.** Pandemic-era remote learning challenges access to learning communities; communities usually sustained on campus through informal activities are difficult to recreate in a remote environment. However, taking active steps to build community through engaging students about their everyday lives may reap rewards for student learning. The Keep Teaching resource at UC Santa Cruz recommends easy-to-implement steps for building community. For example, instructors may start class with a fun question or use the chat to individually invite students to share comments. Sharing more about your own experiences and journey might help, too.

2. **Build in online-friendly ways of participating.** It is difficult for many students to interact with one another through online platforms. Utilizing a variety of online participation structures (i.e. chats, polls, and other platforms) may increase student engagement. In addition, several students mentioned that they enjoyed being in a small, consistent group for discussion all quarter. positions are only one option in

a larger workforce context. Develop programs that recognize and value students who may take these other paths.

3. **Balance flexibility and accountability.** Many students deeply appreciate professors’ flexibility, which humanizes professors, and helps students to feel more visible. Balance this flexibility with regular activities and structures so that students do not feel they are “off the hook” for learning class material.

4. **Recognize the strengths and living spaces of students and families.** Instructors can increase access to the learning space by acknowledging that not all students have private physical space to complete their work. In addition, instructors can model or explicitly teach boundary-setting or personal organization strategies for students. Finally, encouraging students to bring their home lives into their schoolwork with assignments that use family as a resource may help alleviate the tension between home and school spaces. Indeed, families are working with students to support their education, and may provide an important sense of purpose for remaining in school.

5. **Ensure that students have access to necessary technology.** Engaging in pandemic-era remote learning without stable, fast internet connection or appropriate technological tools (e.g., working laptop, software) is difficult. Connect students to campus programs (e.g., Slug Support, Information Technology Services, Disability Resource Center) to gain access to necessary technology.
REFERENCES


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Authors

**Samantha Basch, M.Ed.**
Graduate student
Department of Psychology
sabasch@ucsc.edu

**Rebecca Covarrubias, Ph.D.**
Associate Professor
Department of Psychology
rebeccac@ucsc.edu

**Su-hua Wang, Ph.D.**
Professor
Department of Psychology
Director, New Gen Learning
suhua@ucsc.edu

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Learn more about the work at CREA.

**Email:** CREAlab@ucsc.edu

**Site:** https://rcovarrubias.sites.ucsc.edu