WHAT'S LOST,

WHAT'S LEFT,

WHAT'S NEXT:

Lessons Learned from the
Lived Experiences of Teachers during
the 2020 Novel Coronavirus Pandemic

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Abstract

To understand more deeply the practice and professional experiences of educators during the 2020 extended school closures, we interviewed 40 teachers from across the country in public, charter, and private schools, at different grade levels, and in different subject areas. From our conversations, three key themes emerged: 1) **Student Motivation**: Teachers struggled to motivate their students through two layers of computer screens; 2) **Professional Loss and Burnout**: As they lost familiar means of teaching, teachers also lost a fundamental sense of their own efficacy and professional identity; and, 3) **Exacerbated Inequities**: This sense of loss grew deeper as teachers witnessed the dramatic intensification of the societal inequalities that had always shaped their students' lives. Effective planning for school reopening in Fall 2020 will require understanding these facets of teachers' experience and addressing the challenges they pose. We propose five design considerations to plan for resilience: center equity, focus on relationship-building, build student motivation, address staff motivation and burnout, and mitigate uncertainty.

Full, de-identified transcripts of most teacher interviews are available at <https://osf.io/2fjtc/>. Other researchers who have interviewed teachers this spring and summer are encouraged to share their data there as well.

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Introduction

Students call Vanessa¹ “The Singing Math Teacher.” Before the pandemic, she was well-known for using songs, call-and-response, and rhythmic activities to help her fourth graders learn math. Across the country, she has been invited to share her unique pedagogies. But few of them worked over Zoom: “I’ve got 28 kids at 10 different achievement levels. I need to be able to touch them, to look at them, to say that one right word, to do whatever it takes. But I can’t. Oh, I’ve tried, I’ve tried. I promise. ‘Let’s sing this song,’ I’d say. But nothing synced. It was horrible.”

For Vanessa, remote instruction meant a terrible loss in her ability to help students learn, in her efficacy as a teacher, and in her sense of herself as a professional. These personal losses are part of the wider tragedy unfolding around her classroom and around the country, especially for students of color in urban school districts. Vanessa has watched as the pandemic and the shift to online learning has made the position of students, families, and communities of color even more precarious. “As a person who identifies as a Black woman,” she told our interviewer, “I am angry and terrified. None of these inequities are new and we’ve been saying this for a long time... But especially living where I live, I am scared as hell.”

Vanessa’s struggles with remote learning during the global pandemic are not unique. According to a number of recent national surveys, the majority of U.S. teachers harbor deep concerns about remote schooling during the pandemic. In one poll, 86% of teachers worried about how children were doing during remote learning, 76% believed that children were “falling behind,” and 83% reported that they, like Vanessa, were having a harder time doing their jobs (USA TODAY & Ipsos, 2020).

To understand more deeply the life experiences of the educators behind these survey results, in April and May of 2020 we interviewed 40 teachers from across the country: in public, charter, and private schools, at different grade levels, and in different subject areas. Our goal was to build a rich description of teacher practice and professional life during this challenging period.

From our conversations with teachers, three key themes emerged:

- **Student Motivation:** Teachers struggled to motivate their students through two layers of computer screens;
- **Professional Loss and Burnout:** As they lost familiar means of teaching, teachers also lost a fundamental sense of their own efficacy and professional identity;
- **Exacerbated Inequities:** This sense of loss grew deeper as teachers witnessed the dramatic intensification of the societal inequities that had always shaped their students’ lives.

The challenges from this past spring are likely to persist into the next academic year. Understanding how teachers experienced, managed, and sometimes even overcame these challenges will help school and system leaders support educators through these challenging times. We conclude with five recommended areas for school communities to address in their reopening plans: center equity, focus on relationship-building, address student motivation, address staff motivation and burnout, and mitigate uncertainty.

¹ All teacher names are pseudonyms. Where interviewees allowed us to post the de-identified transcript of our conversation, we have provided links to the source conversation. Some quotations are edited for clarity in this report; complete quotations are in the transcripts.

Initial Evidence about Schooling During a Pandemic

The earliest forms of evidence about schooling during the pandemic have come primarily from three sources: analysis of policy guidance, journalistic interviews with stakeholders and community members, and surveys of students, teachers, and families.

Examining state and district policy guidelines provides some sense of what was supposed to happen during extended school closures. State level guidance called for schools to focus on meeting basic student needs around food and wellbeing, to continue learning through a combination of digital and non-digital channels, and to be attentive to issues of equity in developing responses (Reich et al., 2020). State policies universally called on schools to attend to the needs of students with disabilities, without providing much specific guidance on how best to do so. State policies differed as to the purpose of remote schooling, with some states emphasizing that students should make continued progress in standards-aligned curriculum and others encouraging enrichment, family projects, and review of previous material. Analyses of district policies suggested that several markers of affluence—such as broadband access, parental education, income-level—were correlated with more comprehensive district responses. (Harris et al., 2020). Communities with more resources could muster more ambitious plans for remote learning.

Weeks after decisions were made about remote teaching plans, surveys began to reveal the wide range of challenges posed by the shift to remote instruction. A majority of parents (60%) and teachers (86%) expressed concerns about how children are doing during remote learning (USA TODAY & Ipsos, 2020). Teachers reported having a harder time doing their job remotely (83%) and believed that children were falling behind due to “distance”/remote learning (76%). With only 12% of teachers reporting covering their full curriculum during Spring 2020 remote teaching, there is substantial concern about the foundation set for Fall 2020 (Hamilton, Kaufman, & Diliberti, 2020).

Several reports and surveys reinforce findings from policy analysis that remote teaching has been largely inequitable. Approximately 30% of families with school-age children either do not have adequate home Internet access or do not have the digital devices necessary to access remote learning resources at home (Chandra et al., 2020). Furthermore, there are significant gaps in home access to Internet and digital devices along racial lines, with 81% of students in white-majority schools having adequate access to digital technology for remote learning, but only 66% of students in Black-majority schools having that access (Kraft & Simon, 2020). A similar divide is seen for socioeconomic status, with 87% of students in low-poverty schools having adequate technology access but only 64% of students in high-poverty schools having that access (Kraft & Simon, 2020).

Surveys and policy analyses can provide a snapshot of national trends, but understanding the lived experience of educators during the pandemic requires richer qualitative evidence. Journalists have been at the forefront of storytelling during extended school closures, and articles such as “Exhausted and Grieving” (Gewertz, 2020) and “Inside Teachers’ Never-ending Crisis Shifts” (Esquivel, 2020), have featured stories describing the extraordinary efforts that devoted educators put into making remote learning work as best as possible. Some of the early scholarly research has looked within disciplines, such as math (Horn & Schneeberger McGugan, 2020) and elementary science (Anderson & Hira, 2020), to provide rich descriptions of how teachers have adapted their practice to remote learning. Throughout these reports, the stories of teachers include moments of extraordinary ingenuity--and substantial difficulty--as they transition to remote instruction.

We extend these findings through analysis of 40 teacher interviews (Appendix A) conducted in April and May 2020, with a diverse group of educators from across the United States working in different school types, across grade levels and subjects (see Table 1). Our study addressed one broad research question: What was the experience of teaching practice and teacher professional life during the initial extended school closures caused by the novel coronavirus?² In what follows, we present key themes from our interviews and then design guidance for next year.

² The full transcripts from 39 of the interviews are available for viewing at <https://osf.io/2fjtc/>, and we invite other researchers with qualitative interview data from the pandemic to share their data at the same repository. Interested researchers can submit their data at the intake survey at <https://forms.gle/WJ37pa6fhpHgdQfs7> or contact the authors to have their data included.

Table 1. Sample Characteristics

Subject Domain			
STEM	23	Computer Science	1
		Math	20
		Science	8
		Technology	4
HUMANITIES	21	English Language Studies	11
		History/Social Studies	8
		World Language(s)	4
		Music	1
		English Language Learning	3
OTHER	2	Special Education	2

School Level		School Type	
Elementary	12	Charter	9
Middle	13	District Public	23
High	21	Private	8

Teacher Gender		Teacher Race/Ethnicity	
Female	32	American Indian or Alaska Native	1
Male	7	Asian	3
Non-Binary	1	Black or African American	3
		Hispanic or Latino	2
		Multiple Races/Ethnicities	1
		White	30

Findings

The Challenges of Maintaining Student Motivation in Remote Learning

Student motivation is always a crucial ingredient in effective learning. During the pandemic, issues of motivation took on even greater urgency: how to get students to participate at all in remote learning, and then, once engaged, how to help them focus remotely amidst the distractions of home. Interviewees routinely discussed how much of daily life in schools could not be effectively replicated online. As [Jennifer](#), a Florida kindergarten teacher, expressed it:

I really think it's just not seeing my students. We worked so hard in building that community and now nobody has that classroom community. I don't have the community of my students. My students don't have the community of their peers or their resource teachers. So I think it's just knowing that everybody is missing that community and school culture piece, and I can do as much as I can, but nothing is going to simulate that virtually.

For teachers working in settings where students have limited technology access, home settings with barriers to learning, and other challenges of a pandemic, a substantial portion of teacher energy could be consumed simply by trying to maintain these relationships. As one high school teacher in a wealthy suburban district, [Sofia](#), told us, “[I’m] just sending emails, seeing how they are doing, recording myself in video, sending it to them—just to keep them connected. That’s the goal. And teaching, learning new stuff? Forget it. Really, forget it, at least for me.” With limited time and energy available for synchronous online meeting, teachers faced trade-offs in their choices about their time allocation—time spent creating opportunities for connection, social and emotional support, and relationship-building is time that is not spent on content learning. For this teacher, until these relationships could be rekindled and reformed online, content teaching would have to wait.

Pursuing Relationships through Video Conferencing

For individual check-ins with students, teachers described their use of phone calls, text messaging, emails, and some use of one-to-one video conferencing. But for maintaining classroom relationships and the sense of shared learning and *esprit de corps*, teachers almost exclusively used Zoom (or other video conferencing tools). In particular, they discussed the developmental process of figuring out which teaching strategies could continue to work in video conferencing, which failed, and what new effective practices they discovered.

Teaching in a classroom is a sensory deluge, and experienced teachers know how to track students’ verbal and non-verbal cues about their understanding, engagement, and affect. Much of that visual and aural information gets lost during virtual instruction. [Austin](#) explained how video conferencing platforms did not allow for the feedback he typically gets from students about what they are understanding and what they are not:

The most significant difference for me is the lack of feedback in a classroom setting in the digital sphere because when you're talking, body language feedback somewhat exists if you can see all the videos, but still is pretty hard. And there's sort of none of those, that nonverbal and some verbal communication that exists to help me manage levels of understanding and flows of the classroom and all of those things that consciously or unconsciously I'm aware of don't exist. And so that's been a struggle.

Despite these challenges, several teachers described their ongoing efforts to reforge classroom norms and communities online. [Sarah](#) observed that when video discussions worked, students felt connected and appreciated:

They seem to appreciate when we find ways to actually engage in a full group discussion. And I'm finding that...if I can spark it, we can sort of maintain some pretty wide involvement and sort of sharing of carrying the conversation load for four or five minutes. And when that happens somehow, I was surprised to hear from students how much that mattered to them and how good that felt to them.

For several of our interviewees, these conversations were easier to facilitate in smaller groups. Some teachers split their classes in half to allow for more engaged, albeit less frequent, meetings. Other teachers managed to make small group conversations work in breakout sessions.

On the other hand, many of the teachers we spoke with reported that video platforms like Zoom exacerbated ordinary adolescent self-consciousness. As [Marina](#), a high school math teacher explained:

Imagine what it'd be like to be 16 or 17, staring into a screen that's zoomed in on your face the whole time. You're talking to the other kids in your class. You're staring into a video mirror, looking at what's wrong with your face....And I know the problem isn't the video. Because sometimes, after class is over, a couple of kids just want to chitchat, too, like we used to, or talk about Star Wars or whatever. And as soon as the other students leave, they'll turn their cameras on.

This self-consciousness was even more of a problem in those classes to which students often bring an especially sharp fear of looking unintelligent. [Marina](#) went on to describe how virtual classes magnified her students' math anxiety:

If I thought they were shy when they were in ordinary class, trying to get them to engage with each other on Zoom is nearly impossible. Given the choice, they will not turn on their cameras or even their audio. They won't respond unless they're directly asked a question. They prefer to respond only in the chat, sometimes to the whole group—but often it's just a private message to me.

These issues are further exacerbated for students experiencing poverty. Several teachers reported that students did not attend virtual sessions or did not turn on their cameras from fear of giving their peers a glimpse into their homelife. [Sofia](#), who teaches in an affluent suburb that buses in students of color, many of whom come from working-class homes, told us that these students do not want to turn on their cameras because they do not want their wealthy peers to see inside their homes. The leveling effect of shared space in a school building cannot be replicated on Zoom.

Policy Effects on Student Motivation

In our discussions with teachers, they identified two important areas where remote learning policy guidance had unintended consequences on student motivation.

First, messaging and policies that emphasized core courses pushed some students away from elective courses. One elementary teacher, [Mary](#), reported that remote learning has forced them to “not touch science or social studies.” [Judy](#), who teaches high school science electives, described how a growing focus on core content during the pandemic period drove students away from her classes. In the early period of the shutdown, students regularly attended and participated in her Forensics courses, but as schools increased expectations for student learning in core content areas, students paid less attention to their electives and stopped showing up for her courses. These patterns mirror findings from the era of standards-based accountability, where policy mandates to focus on certain “core” courses like English and math reduced teacher and student attention on a holistic curriculum (Berliner, 2011).

Second, many education stakeholders observed that assigning grades to or requiring attendance from students who lacked the infrastructure to participate in schooling seemed fundamentally unfair during a pandemic. As a result, many states, districts, and schools implemented policies that relaxed expectations around grades, attendance, and other school requirements to accommodate students. In some places, this led to a second wave of student disconnection. In many schools and classrooms, teachers and systems depend upon these extrinsic motivational factors to compel student participation in school, for better or for worse. In their absence, teachers observed that students withdrew from remote schooling. As one teacher explained: “Without the structure of having to be in the school building at a certain time, it’s much harder to hold students accountable for being in any defined place at a defined time to do something, especially when they know the video of class is going to be on-demand afterwards” ([James](#)). While assigning grades during a pandemic seemed unethical, teachers reported that removing grading as a motivation could reduce overall participation. These extrinsic motivations and structures relaxed at the same time that some of the most compelling sources of intrinsic motivation for schooling—the opportunities for socializing and relationship-building—also disappeared. Turning towards the fall, teachers, administrators, and policymakers need to revisit how to balance these ethical dilemmas with the important role that requirements play in extrinsically motivating student participation.

Professional Loss, Uncertainty, and Burnout

Amidst all of these challenges, another throughline from our interviews was teachers’ experience of loss, uncertainty, and burnout. Many of the teachers we talked to felt like the job they have known and loved—for decades in some cases—was lost in the transition to remote learning. As teachers lost connections with students and colleagues while also losing a sense of professional competence and efficacy, they described that experience with words such as “mourning,” “loss,” and “sadness.” For example, one middle-school teacher, [Jen](#), who works with emergent bi- and multilingual students in an ELL setting, expressed loss over the customized responsive teaching that she had to give up with the pivot to online learning:

I was mourning my plans. You know? I’ve had plans for this year since last year, and I spend a lot of time kind of tailoring it and designing it and it builds. So to get that kind of cut-off right at the end [of the year], it’s really sad. It’s really sad. So I’m a little bit sad giving up that creative aspect. It also cuts me out of the relationship with the students to a certain degree.

For Amy, an elementary math teacher working in a context where remote learning was, for the most part, reduced largely to independent student work, it wasn't even the same job anymore: "I mean because it's not teaching, it's just assignments. I'm the assignment manager, always. I'm not teaching anymore. It's boring. I hate it. They hate it. I really don't want them to do it to be honest." This feeling of isolation was even worse for those teachers whose districts could not set up online options, either for lack of technology or concerns about its unequal distribution. In these cases, teachers had no way to know what their students did (or didn't) do with the paper workbooks they had been given. Teachers would write lessons, they might make videos, but nothing would come back from their students: "It was like shouting into the void" ([George](#)). When teachers and students are apart during remote learning, one teacher noted that, "we can't witness their a-ha moment" ([Alex](#)), a part of the job that teachers value tremendously.

These frustrations challenged teachers' sense of professional identity and competence; as they struggled to do online learning well, they expressed guilt, frustration, and loss about their own inadequacies in these new formats. One 16-year veteran teacher, [Brandi](#), who employs a student-led, debate-based pedagogy, told us the switch to remote learning made her feel like a "very terrible teacher" who is "awful at this"; she continued: "I mean, it's tough to feel like anything's working." The loss of this professional identity could feel devastating: "Not being able to teach the way I really want to teach, or the way I know is most effective—that has been completely stripped away from me" ([Marina](#)).

Teachers are not well-compensated compared to similarly-educated peers, and much of the rewards of teaching comes from connecting with youth, being of service, and helping people learn and grow. As school leaders consider how to rebuild faculty community this summer and fall, they will need to attend to the loss of self-efficacy that teachers are feeling, *en masse*.

Changing Policies and Concerns about Accountability

Compounding these difficulties, in some school settings, routines and policies were changed frequently during the weeks of school closure, leaving teachers wondering what was coming next. Teachers reported that in some schools, expectations changed regularly: as teachers started to get in the rhythm of some new routine, schedule, or practice, they would be expected to address different goals or policies that required changing those routines. As one elementary school teacher, [Mary](#), remarked:

I feel like I have reinvented my own wheel three or four different times. And then [District Name], definitely with the roll-out of phase two last Monday, things felt very different starting from the week preceding May 4th. And there were a lot of changes with a very quick turnaround for a lot of them. So I am constantly feeling like I get settled, and then something changes and I have to get settled again.

This poses a tremendous challenge for school administrators—teachers and students benefit from consistency, but in the midst of great uncertainty, it is extremely difficult to make good policy choices. In the absence of experience, research, or well-established guidance on pandemic-learning, it is natural to try a range of approaches to see what works, but that experimentation towards iterative improvement can easily become, in itself, a disruption to emerging routines. One veteran teacher, Amy, described the process as follows: "So it was constant 'got you!' It was constant 'go back and redo.'"

After the initial confusion and uncertainty, teachers told us that many districts started to implement new measures that were ostensibly about supporting students, such as taking daily attendance—but soon felt like punitive accountability measures, particularly when coupled with tedious measures for teachers such as signing in to a districtwide system each day. Additionally, these accountability measures were not linked to opportunities for meaningful feedback and professional improvement. Several teachers questioned whether these data could support valid inferences, and whether they would be used to support teachers or to shame them:

It actually feels to me like these decisions aren't actually about kids. It's about adults. It feels to me like it's about making sure that adults are earning their paycheck. And because we want to be sure that adults are earning their paycheck, we're going to make them sign in to a Google Form every day and we're going to make them submit a schedule of all the hours that they're online. But that's different than doing what's actually right for kids. (Brandi)

Schools need data to manage the new world of remote learning, but evaluation practices are more likely to be welcomed by teachers if they are tied to direct efforts to support teacher practice or professional learning, as opposed to accountability measures untethered from opportunities for professional growth.

Maintaining Boundaries

While the job got harder and less psychologically rewarding for some teachers, it also became more expansive. Remote teaching turned into a 24/7 job for some teachers: advocating for students, responding to queries, redesigning curriculum, providing feedback, and teaching lessons at all hours of the day or night—often while homeschooling their own children—and without the natural breaks of commuting, walking the halls, or other features of daily pre-pandemic life. As one teacher, [Mary](#), told us:

I spent intentional time in the beginning of my career where I was learning to call it a day. I was learning to leave it at the door. I was learning to take space and reflect before adjusting and all of that is gone. So I am learning a fundamentally new way of being an employee, of being a teacher, and of being a person in trying circumstances.

Online connections can also transcend physical boundaries, and some educators benefitted from these changes. For teachers (and students) with social anxieties, working from home might be a welcome relief. Some schools implemented common planning time for teachers, where educators working in a grade level or subject area worked together to develop effective curriculum or teaching routines. In an interview with an instructional coach, the coach described how remote learning allowed coaches to move more seamlessly from one virtual classroom to another virtual classroom, without needing to travel between physical classrooms and buildings.

But in most cases, teachers mourned the loss of what makes school enjoyable, even “magical”. Returning to school in the fall will not merely be a technical exercise of ordering masks, measuring desk spaces, and arranging hybrid classes. Effective school leaders will need to attend to “the human side of school change” (Evans, 2001) and work with teachers to address and mitigate feelings of professional loss and mourning alongside the potentially grinding, tiring effects of extended school closures in a second (or third) wave. Whether schools unfold in remote, hybrid, or in-person (but masked and distanced) settings, the emotional toll of change will need to be compassionately addressed.

Existing Inequities Were Exacerbated

U.S. schools are plagued by inequitable conditions along lines of race, class, language learning, and disability, and these divides that existed before the pandemic were exacerbated during school shut-downs. The barriers to accessing remote learning for families from low-income backgrounds in communities of color were significant. In addition to technological barriers—e.g., lack of access to devices and reliable broadband Internet—students faced new COVID-related challenges such as taking on a new job or extra hours at an existing job, or taking care of younger family members as parents and caregivers went off to work and schools no longer served children. When we asked [James](#), a high school math teacher, what gets in the way of his students attending synchronous classes, he answered: “Life.” [Marina](#), explained the conditions and responsibilities that interfered with remote learning:

My students are living in situations where it’s four or five to a one-bedroom, with kids sleeping on the couch in the living room or on the floor. It might be two families sharing a two bedroom. Nine people total with only one bathroom. And during the day, other kids might be dropped off, maybe cousins who are there from 7:00 in the morning until 5:00 for babysitting. I have kids who call or Zoom in from their closet because it’s the only space they have that’s somewhat private.

Many districts recognized the need to find out which students needed devices or stable broadband access, and quickly surveyed their families. Educators, however, soon discovered that having a device in their home did not guarantee that students would be able to get access to it ahead of all the others in their household. [Brandi](#) explains how one student struggled to connect because of device and internet access issues:

I have kids that still don’t have working technology and we’re in week eight. And we’ve been trying and trying and trying. There are real basic infrastructure issues to doing online learning that I think people don’t want to acknowledge and they want to pretend that we can just pick up where we left off, and well, we can’t....[O]ne of my kids, he literally has not had access. He has a Chromebook, then he didn’t have the Internet. Then he got a hotspot but the hotspots are really weak and so none of the files load for him. So he’s connected, but not really, right? And at this point...I don’t even know what to tell him. This isn’t his fault, you know?

In many families, these barriers often compounded—students with cramped housing are often the same students with limited technology access, with parents who are essential workers, or with additional childcare or work responsibilities. Teachers spent much of the first couple of weeks trying to track down students who were not participating in remote learning, using a variety of methods that included making phone calls to students and families, texting them, and reaching out via social media.

Compounding Challenges for Language Learners and Disabled Students³

State policy guidelines issued early in the pandemic emphasized the importance of addressing the needs of English learners and disabled students, but those documents typically provided little specific guidance about how to do so. On the ground, teachers and other educators needed to invent new support systems to replace those developed in physical school buildings.

For instance, the demand for translation skyrocketed as schools put their entire programs online, and some teachers reported school and districtwide information being sent out only in English. [Bonnie](#) explained that the informal, on-campus supports for English language learners were particularly difficult to replace:

We have children who speak different languages, and I think the thing that we're worried about as a school is whether there is something we can do to help them with translation or getting them the right resources. And I think with the problems with communication with some of the families that we still can't get in touch with, I think that's a big worry. Do they have the support somewhere? Do they know where to go? I mean unfortunately even our secretaries and principals are working remotely so there isn't even a physical body at the school right now. Whereas before if something comes up or they got a piece of mail or something, they would just walk into the office and we could help.

Another ESL teacher, [Jen](#), reported that one of the standardized online “solutions” her Kentucky district provided was not designed for those learning English, so her students were just “clicking buttons on [the] program, and they really require something different.” New technology-mediated learning routines needed to be modified to support English learners.

Disabled students—poorly supported by schools in the best of times—also were not well served through remote learning. As one teacher, [Marianne](#), stated about the pivot to remote teaching: “Special Ed is a huge mess. Huge.” Again, difficulties often compounded for the most vulnerable students, as Washington, D.C. elementary school teacher [Carla](#) explained: “And there are some students who also have learning differences and ADHD and speech delay and what not, and they're really struggling. And a lot of it's because of the isolation. A lot of it is because they're scared.” Anxiety, social isolation, and other pandemic-related afflictions added to the challenges of serving disabled learners.

As teachers talked about the struggle to provide the reading, writing, and mathematical supports to which students are legally entitled when providing remote teaching, they also described their incremental, iterative efforts to build new systems that worked better. As [Austin](#) explained:

My students with attentional difficulties or focus difficulties, this is a really challenging setting for them because it's easy to be distracted at your computer. It's easy to be distracted when you're not in a physical environment that I'm part of and that I can prompt and remind. So somewhat I've just worked on adjusting expectations. We've tried not to do anything that's instructional for longer than 10 to 15 minutes. Even that's kind of long. The homework system that I use has a support system where you can link video instruction to every assignment you give. So every assignment I give has additional support instruction. So if you didn't get a concept the first time, then you've got that ability.

³ We use identity-first language in line with many disability rights advocates, though we know and respect that others use person-first language.

Here, the teacher describes some of his iterative efforts to transition his teaching strategies to remote learning, replacing some of his pre-pandemic techniques that no longer work (when he can “prompt and remind”) to revisiting expectations on pacing (“10 to 15 minutes”) and developing supplemental resources for the online homework system. Throughout our interviews, we heard these kinds of short stories of creativity and innovation in developing new workable routines, but even the best of these efforts moved slowly relative to the dramatic scope of student’s learning challenges.

Addressing Diverse and Conflicting Needs

In several cases, teachers reported that policy efforts to create a sense of stability, routine, and normalcy created acute equity issues in schools with the fewest resources and students with the greatest needs. Early in the pandemic, state-level policymakers wrestled with whether to focus on continued coverage of standards-aligned content—basically teaching class as normal—or whether to shift to review, enrichment, and learning goals that steered away from trying to maintain pre-pandemic expectations. One of our teachers, [Brandi](#), worked in a state where policy guidance shifted mid-pandemic from an enrichment approach to a standards-aligned progress approach, and she argued that the new guidelines might “fly” in well-resourced schools and districts, but not in her under-resourced district, where pressing ahead with virtual teaching was not engaging vulnerable students:

I have kids who show up to every Zoom by every teacher every day. They’re the kids I’m least worried about. I am profoundly worried about the kids who aren’t showing up to anything or doing anything and I just feel like in this model, literally there is zero attention to that group of students. And so it’s like: cool, let’s just create a system that exacerbates all of the...you were already struggling with engagement, you were already really vulnerable, and now we’ve just blown all of that up and we have zero plan for what to do for you.

Another way to frame this argument is that needs in schools are both diverse and conflicting. The policy suggestion to focus on pre-pandemic standards and course pacing was predicated on the idea that many typical students benefit from the routines, schedules, and expectations that schools offer. But there have always been students poorly served by those models, and this teacher argues that the students least supported by schools in normal times might be particularly alienated or marginalized by a return to those models without many of the supports that can help make schools work for struggling students.

In sum, the pandemic exacerbated already-existing inequalities, and the leveling effect of a shared school building was lost as students worked each day from wildly inequitable home settings. Remote learning worked least well for the students who needed the most supports. For teachers who approach their work through an equity or social justice lens, the inability to support the most vulnerable students was demoralizing, and policies that put the needs of “average” students ahead of the needs of the most vulnerable students felt particularly unfair, unwise, and unwarranted.

Discussion: Planning for Resiliency in the Face of Challenges this Fall

Our findings reveal important dimensions of how teachers experienced the sudden pivot to remote learning during the extended school closures of Spring 2020: the difficulties of engaging students, the sense of professional loss and mourning as teachers work in frustrating conditions, and the expanding inequalities that confront teachers in their daily work. These challenges pose a series of dilemmas for policymakers and school leaders as fall returns. Below, we identify five design considerations that should be at the center of remote and hybrid learning plans.

Design Consideration #1: Center Equity in Reopening Plans

Schools in the U.S. mirror the deeply inequitable greater society. This was true before the pandemic, and teachers told us that it got worse with the shift to remote learning. As one teacher, [Brandi](#), pointed out, it should not have taken a pandemic to make substantial collective efforts to ensure that students have everything they need to learn and be healthy:

The problem in our school system is the bones are broken....or nonexistent. Like we don't even have bones....So we are trying to act like everything is normal when we never did the work needed to have strong bones in the first place. And so I think if I were in those rooms [with policymakers] I would want to talk about the bones, which is I would want to talk about infrastructure. I would want to talk about communication structures. I'd want to talk about comprehensive mental health services. I would want to talk about, what is our plan for our tier 3 kids? How do we make sure that we have designed a system that meets the needs of the most extreme users? Let us imagine out and build out, for the most struggling person in the system, what would all need to be in place for this to actually work. And if we did that, then I think it could work for everybody. But the way we're doing it right now is we are not even scratching the surface of what kinds of infrastructure and supports would need to be in place for our most vulnerable learners. And we think that doing things like giving them a Chromebook is a solution. And the Chromebook is not the solution. Technology is not the solution there... the solutions are a lot more human.

This same teacher wondered what will happen when things go back to “normal”—will those supports go away? Based on the beliefs and experiences of the teachers with whom we spoke, we strongly argue that the answer to this question must be “no.” Policymakers and school leaders must focus on “the bones:” the school and community infrastructures necessary to support students and families. Every effort needs to be made—including what will no doubt be dramatic increases in funding and resources—to attempt to “build back better” with comprehensive supports for youth and families that address nutrition, health, housing, and mental wellbeing as pre-requisites for effective learning. There are no easy ways to make right the inequitable systems that surround the most disenfranchised of our students. Nonetheless, as educators, we must do our part by building into our reopening plans a fundamental commitment to our least well-served students.

Design Consideration #2: Focus on Relationship-building

We consistently heard from teachers that online relationship-building is hard but essential. Given the timing of the March shutdowns, teachers, staff, and school leaders had already had 6-7 months to build relationships with students and to create community among students. As freshman biology teacher, [Alisa](#), said, “I feel really fortunate that I had my students for two trimesters before this one because I had relationships with them and I knew them.” This will not be the case for schools who begin the school year with remote learning, and it will be more challenging than usual for teachers who may only see students 2-3 times a week in hybrid models.

The temptation for many will be to plow full speed ahead into academic learning, particularly given how much formal learning many of our students have missed out on due to the COVID-19 shutdowns last spring. However, what we have learned from many teachers suggests that this would be a mistake. As so many of our teachers pointed out, without relationships, academic learning simply does not happen. We believe that efforts to speed up in order to catch students up would be counterproductive. Instead, we would recommend placing relationship-building at the center of what schools do for the first phase of school re-opening, whether remotely or in-person.

Some of the techniques that teachers use to connect with students and to connect students with each other are difficult if not impossible to replicate online. Educators should continue to develop effective practices with video conferencing, while also exploring other platforms for online connection, perhaps looking at communities built through social media and gaming platforms for inspiration. Asynchronous video sharing (through sites such as FlipGrid or Voicethread) might be a way for younger students to share a beloved item from home or for older students to present on an issue in their community they care about and want to take action. Synchronous singing online may not be possible, but students submitting songs and videos they created individually around math problems may be. Of course, we do not mean to minimize what has been lost, but we know teachers are endlessly creative and we believe they will find new outlets that exemplify some of the learning and engagement principles that are present in in-person learning. Many of the means by which teachers can create community this fall through remote learning are yet to be discovered, but centering relationship-building in design plans for starting the school year is essential.

Design Consideration #3: Addressing Student Motivation

Many of our teachers reported that the loss of structures that provide extrinsic motivation—grades, attendance requirements, and other expectations—reduced their effectiveness. One response to this difficulty might be for school systems to simply reinstate all of these expectations. But recall that these policy changes were initially spurred by concerns about ethics and fairness. While from a utilitarian perspective it may be that schools can compel more learning from more students with these structures, it could still put teachers in the position of failing or punishing learners because society has not provided students or their families with adequate resources to participate in online or hybrid learning.

An alternative response would be for schools to substantially ramp up their efforts to foster intrinsically-motivated students and learning. We interviewed one teacher, [Angela](#), whose classroom was a model of student-centered, engaged learning. She had strong relationships with students and developed learning experiences that attended to their interests and motivations, and her classroom participation was largely unaffected by the transition to remote learning. For synchronized learning sessions, she often brought in guest speakers such as community leaders, writers, artists, and other informal educators to discuss social justice issues relevant to the community. She said that, of her approximately 90 students, only a handful were not present on the Zoom sessions, and parents and grandparents would often sit in and learn alongside the students from the guest speakers. Her classroom stood out as a powerful example of how interest-driven learning can be sustained online. Some schools may be in a position to make a major shift away from extrinsic rewards and mechanisms of control; they may be able to use the pandemic to emphasize pedagogical models that engage students more through deep relationships, learner agency, and compelling instruction and learning rather than the typical toolkit of compliance.

Many schools, however, probably need to return to the grades, attendance requirements, and other guardrails for student behavior that were relaxed this spring. If schools face widespread shutdowns due to a second wave of the virus this winter, however, the moral dilemmas that compelled relaxed expectations will still be present. To address these dilemmas, we offer three suggestions. First, support students and families in obtaining the infrastructure for home learning. As students return to school buildings, use those face-to-face connections to help students and families prepare for a second shutdown. Second, consider retaining some of the flexibility offered this fall without broadcasting it so widely. Communicate policies to students and families that set high expectations for grades, attendance, schoolwork quality and so forth, but be prepared to negotiate those expectations individually with students who face substantial challenges to participation. Consider competency-based or mastery approaches to learning and assessment that emphasize a student's final progress against expectations versus the specific pathways by which students achieve those goals. Illinois offered guidance on grading emphasizing learning over compliance (Figure 1) that was to apply to remote learning during the shutdowns, but might be useful at all times, remotely or in-person. Finally, build faculty strength around pedagogical models that depend less on compulsion and more on student motivation and autonomy. The best way to avoid punishing students for struggling to participate in schooling is to make schooling so compelling that they choose of their own volition to overcome those struggles. Illinois offered the following [grading recommendations](#) (see page 2 of link).

Essential Grading Recommendations

- The emphasis for schoolwork assigned, reviewed, and completed during the remote learning period is on **learning**, not on compliance
- Grading should focus on the continuation of learning and prioritize the connectedness and care for students and staff. All students should have the opportunity to redo, make up, or try again to complete, show progress, or attempt to complete work assigned prior to the remote learning period in that time frame. A focus on keeping children emotionally and physically safe, fed, and engaged in learning should be our first priority during this unprecedented time.

Design Consideration #4: Addressing Staff Motivation and Burnout

School leaders face a daunting challenge in managing expectations and fostering motivation among their faculty. As is appropriate, many school and district leaders are focused on the first days of school in August and September and figuring out how to get the year off to the best possible start. But leaders also need to plan ahead for how to support teachers through a long, pandemic-inflected year.

A typical school year has natural ebbs and flows, teachers are energized as routines settle in during October, things sometimes go off the rails between November and December breaks, there can be a burst of energy in January as school comes back, and a slide returns in the waning weeks of May and June. Throughout it all, the silliness of students, the small breakthroughs of learning, the deepening relationships with peers and colleagues, the sense that classes are falling into productive rhythms all contribute to teachers' professional energy and motivation. These sources of professional satisfaction are at risk in a school year marked by increased use of distance learning and fewer opportunities for face-to-face relationship-building.

Our findings offer important clues to address these challenges. Managing teacher workload and stress level will be important. Administrators need to support teachers in taking care of themselves and setting some boundaries around time expectations—while still working together across faculty to make teachers available to students at whatever hours they may be working. Several teachers commented on the efficacy and professional satisfaction of collaborative planning, and schools should consider emphasizing structures that let teachers work together to solve common problems. If low-residency use of buildings limits opportunities for teachers and students to socialize and get to know one another, re-opening plans should include additional virtual opportunities for building relationships through advisories, extracurricular activities, office hours, or other structures.

All educators hope that the crash course in remote learning from this spring will lead to a more effective return to schooling this fall. Ideally, schools will build on these experiences, develop effective hybrid models, be better prepared for waves of closure, and continuously improve as the year goes on. But schools also need to prepare for a trying, tiring year. School leaders need to address the factors that most hindered teacher effectiveness and wellbeing, to anticipate that a year of hybrid schooling may have fewer professional rewards and more difficulties than a typical year, and to plan programming designed to support educators and their students through a long, challenging process.

Design Consideration #5: Mitigating Uncertainty

The final design challenge has to do with balancing stability and experimentation. Some of our interviewee's most sharply-worded frustrations were directed at school, district, or state changes in policy, expectations, or goals. Students and teachers need to develop stable routines for effective learning, but teachers can't develop stability if administrators are constantly changing expectations.

Unfortunately, no school in the United States has ever reopened for a new school year amidst a pandemic—it isn't possible for school systems in advance of the forthcoming school year to make every decision about school policy and programming correctly. Some administrative choices will be wrong or misguided, and schools need to be able to experiment to iteratively develop more effective practices. Of course, one administrator's "iteration towards effective policy and routines" is another teacher's "constant, incoherent shifting of expectations and norms."

In re-opening schools, teachers and administrators should negotiate both the process and expectations for ongoing improvement. Faculty and leaders should agree on certain parts of the system that as much as possible are held constant over an extended period. From our conversations, the weekly schedule and technology infrastructure are two of the places where teachers hoped to see clearly-communicated, simply-designed, and consistently-maintained expectations. Other parts of a remote learning infrastructure can be iteratively improved if the foundations are held constant. Schools may also want to consider adopting a yearly schedule that has more clearly demarcated points for bigger changes. Schools might break a typical semester into quarters or eighths, with expectations that things will be held relatively constant within each period, and students, families, and teachers can expect bigger changes in expectations at those well-defined, scheduled transition points. Schools will not get all of their re-opening decisions right, and effective leaders need to work with faculty and other stakeholders to experiment and make iterative improvement without driving teachers, students, and families to frustration with constant change.

Conclusion

Schools face enormous challenges in the weeks ahead, and reopening plans need to center the voices of students and teachers who will do the most important work of learning and teaching. Our conversations with forty educators from across the country have highlighted some well-reported themes about expanding inequality and the challenges of maintaining student-teacher relationships online. We also report new evidence on the psychological toll that teachers have experienced under remote learning, and the critical importance of addressing these feelings and conditions as a new school year begins. School systems are not merely technical assemblages, and human emotions and relationships are at the heart of the learning enterprise. Continuing to listen to educators and understand the complexity of their lives and work during the pandemic will be essential to mounting an effective response in the near term and to building more robust, resilient systems in the long term.

Methods

Beginning in April 2020, we began recruiting a convenience sample of teachers to participate in a one-hour interview about teaching practice during a pandemic. We recruited interviewees through three primary methods. First, our lab maintains a mailing list of 25,000 in the United States, who have participated in five online courses that we have offered on the edX platform. We distributed an invitation to all of these U.S. educators to complete an intake survey about their experience and subsequently to participate in an interview. Second, we reached out to educators on our social media networks. One of our authors is active in teacher organizing, and through this network we “oversampled” progressive educators active in teacher unions, educational organizing, and social justice work. Third, we reached out to personal connections, including to leadership in a national charter network, often characterized as “no excuses” in philosophy, that allowed an “oversampling” of teachers from that network. In total we interviewed 40 teachers, and [Table 1](#) shows the demographic breakdown by subject domain, school level, school type, and teacher demographic information.

Each interview was approximately one hour long, and it focused on six questions:

1. What was your school’s plan for addressing remote learning?
2. What did you actually do in your classroom practice?
3. What worked?
4. What didn’t work?
5. How did students, especially your vulnerable or marginalized students, respond?
6. What did you learn that could be applied for school reopening in the fall?

The full interview protocol is in Appendix A. Our aim in these interviews was to piece together a thick description of teacher practice and professional life during the pandemic, with a special attention to insights that might be useful in developing school reopening plans.

In order to facilitate transparency and build a database of teacher experiences during the pandemic, we obtained consent from all interviewees to publish de-identified transcripts of our interviews in an open repository. The full transcripts from 39 interviews are available for viewing at <https://osf.io/2fjtc/>, and we invite other researchers with qualitative interview data from the pandemic to share their data at the same repository. Interested researchers can submit their data at the intake survey at <https://forms.gle/WJ37pa6fhpHgdQfs7> or contact the authors to have their data included. Readers of this paper can see the full underlying data from our research.

Interviewers coded their own transcripts, and as a team we used an abductive approach to our shared analysis (Tavory and Timmermans, 2014). We used our six questions as etic codes for an initial analysis, classifying responses as insights into school plans, teacher practice, what worked, what didn’t, student response, and suggestions for fall. We then recoded the key insights from these responses into 9 emic categories of important themes in participant responses:

1. Student Motivation	6. Technology
2. Teacher Motivation and Burnout	7. Parents and Families
3. Teacher Time, Planning, and Collaboration	8. Socializing and Relationships
4. School Schedules and Routines	9. Preparing for Fall Planning
5. Vulnerable Students	

We then synthesized these 9 themes into three key categories of findings around inequality, motivation, and professional loss and fatigue. While we have a diverse group of teachers from a range of U.S. states, grade levels, school types, subject areas, and ethnic and racial backgrounds, we did not solicit a nationally representative sample of U.S. teachers and we should expect that teachers in our networks who agree to participate interview research during a pandemic differ in a variety of unobservable ways from a nationally representative sample. Our key findings, however, cohere with some of the widely reported observations of teacher practice during the pandemic. The mechanisms behind difficult challenges and the glimmers of effective new practice that we describe in our findings are valuable hypotheses and starting points for trying to understand how teachers have responded to an unprecedented crisis in U.S. education.

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Appendix A: Interview Protocol

I. Introduction

- Is this time still ok for you? How long are you available to talk?
- This interview is part of a much larger project that's involving educators all over the country. We're trying to understand educators' experience during the pandemic, so that we can gather lessons that might help remote learning happen better in the future.
- In this interview, there are no right or wrong answers. You're the expert, and we just want to understand how you see things and what you think about them.
- We will do everything we can to keep what you say confidential, and will take your name and other identifying information off your responses.

II. Background (if survey completed=confirm; if self-administering interview=answer)

- Which state and city do you work in?
- What is your role? (e.g. if a teacher, what grade-level and subject)
- What kind of school do you teach at? (e.g. public/private, K-6/K-8/etc.)
- How long have you worked there?
- How long have you worked in education? In what capacity?

III. Your experience of remote teaching and learning

III.1 Short form

1. What's supposed to be happening in your school with remote learning?
2. What are you actually doing? What does your practice look like now?
3. What's working?
4. What's not working or not yet working?
5. How are students responding? Are different students responding in different ways?
6. What have you learned from remote teaching that could be useful in the future?

III.2 Long form

1. What's supposed to be happening in your school with remote learning?
 - a. During this time when you and your students are not in school together, what kind of instruction are they receiving?
 - b. Elements of instruction
 - i. Delivering instruction
 - ii. Interacting with students/families outside of instructions (e.g., "office hours"; parent check-ins)
 - iii. Communicating with/responding to students (e.g., giving feedback, grading)

- iv. Interacting with colleagues within your school (e.g., faculty meetings)
- v. Both internal & external support you've found helpful
- vi. Addressing your students' needs who have disabilities and/or require special education (e.g. speech therapy, supplemental instruction, etc.)? What unique challenges, if any, have arisen?

2. What's supposed to be happening in your school with remote learning?

- a. What do you think is the biggest difference for your students between in-person and remote learning? What do you think is the hardest part for them? What makes that aspect so hard?
- b. What do you think is the biggest difference for your students between in-person and remote learning? What do you think is the hardest part for them? What makes that aspect so hard?
- c. Elements of instruction
 - i. Delivering instruction
 - ii. Interacting with students/families outside of instructions (e.g., "office hours"; parent check-ins)
 - iii. Communicating with/responding to students (e.g., giving feedback, grading)
 - iv. Interacting with colleagues within your school (e.g., faculty meetings)
 - v. Both internal & external support you've found helpful
 - vi. Addressing your students' needs who have disabilities and/or require special education (e.g. speech therapy, supplemental instruction, etc.)? What unique challenges, if any, have arisen?

3. What's working?

- a. Think of a moment when you saw remote teaching work very well. Please describe what happened.
- b. If you could show me a video of that moment, what would I see happening? What would I hear?
- c. What were the characteristics of that moment that made it good?
- d. What factors helped that moment go well?

4. What's not working or not yet working?

- a. Think of a moment when you saw remote teaching did not work well. Please describe what happened.
- b. If I had a magic wand and could give you whatever would really help out your remote instruction--what would it be?
 - i. Why--what would make that thing so helpful? What job/s would it do for you?

5. How are students responding? Are different students responding in different ways?
 - a. From what you can tell: how are your students responding to remote instruction? Are different students responding in different ways?
6. What have you learned from remote teaching that could be useful in the future?
 - a. If your school continues with some remote learning this fall, what would you want to continue and what would you want to be different?
 - b. If you could go back in time and give some advice to yourself - at the moment when you first started teaching remotely - what would it be?
 - c. If your school needs to operate remotely in the fall, what specific thing(s) would you want to have happen differently?

IV. Wrap up

- What have we not talked about yet, that's really important to you?
- Thanks! (e.g., "Thank you for being so open about your experiences. It sounds like you've done a great job in a difficult time.")
- (Offer to share the results of your findings and any succinct, relevant resources your organization has available for them, e.g.): "We've compiled a list of resources for educators (tsl.mit.edu/covid19) who are dealing with stressful events. Would you like for us to send you that list? Tsl.mit.edu, teachlabpodcast.com"

V. Post-interview

- Interviewer should write up their initial reflections on the interview immediately after it concludes. Save this on the shared project Google Drive so it can be linked to the transcript (once the audio is transcribed).

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