

High school teachers reflect on schooling during and after the COVID-19 pandemic: A case study

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ABSTRACT

This case study analyzed the reflections of high school teachers and an administrator during the COVID-19 pandemic. Interview data gathered from fall 2020 until spring 2021 supports emerging research that underscores the technological challenges and emotional tensions facing teachers and students during this period. Organization change theory provides an interpretative lens to analyze teachers' vision for schooling post-pandemic and critically illuminates the necessity for rethinking some traditional ways of doing things that includes broadening educational opportunity and narrowing the achievement gap. Recommendations advance a post-pandemic pedagogy and vision of schooling from lessons learned during the pandemic.

Keywords: professional development, technology, organization change theory, COVID-19, case study

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INTRODUCTION

After the Katrina hurricane disaster in 2005, the USA public schools in New Orleans were replaced by charter schools—an example of extensive, systemic educational reform and change (Harris, 2020). The case of reorganized public schooling is an example of government, market, and non-profit organizations response to transforming schooling after a major disaster (Bill & Melinda Gates Foundation, 2020; Bozkurt et al., 2022). Six-months after Katrina, about twenty per cent of New Orleans students were either not enrolled in school or had missed more than ten days a month; and five years after the storm, roughly a third of the city's children had been held back which was nearly double the average in the South (MacGillis, 2020).

The 2020-2021 COVID-19 pandemic was the largest mass disruption of education in history: nearly 1.9 billion students were forced out of schools that impacted their lives and disrupted the delivery of education for at least 12 months around the world (UNICEF, 2022). One in three school children had no access to education as a result of school closures and more than 500 million students could not access remote learning. Sustainable development goal (SDG) #4 that ensures inclusive and equitable quality education and promotes lifelong learning opportunities for all was negatively impacted during this time (World Bank, 2022).

Pandemics and natural disasters not only spur innovative problem-solving initiatives, but provide an opportunity to broaden educational opportunities, narrow disparities, and create a new educational paradigm (Meinck et al., 2022). This qualitative case study of a high

school in the USA southwest sought to identify how high school teachers and administrator responded to the COVID-19 crisis and speculate on their visions for the future of schooling after the pandemic. Three research questions that framed this qualitative research were, as follows:

1. What social and educational issues confronted high school teachers during the 2020-2021 pandemic?
2. How did teachers respond to those same issues?
3. What changes do teachers envision for schools after the 2020-2021 pandemic?

LITERATURE REVIEW

The historical antecedent of the 2020-2021 pandemic was the 1918-1920 Spanish influenza pandemic that led to global disruptions of societies, implementation of quarantine procedures, and the deaths of tens of millions of people (Barry, 2018). As in 2020 and 2021, mask-wearing was observed in the early 20th century in an attempt to curb the loss of human lives and diminish the virus's transmission. Both the 1918-1920 Spanish influenza pandemic and the 2020-2021 COVID-19 pandemic resulted in scientific innovations as a consequence of advanced medical research.

Before and between these two global pandemics of the twentieth and 21st century, there were other great crises and natural disasters that not only spurred national and international responses but resulted in social change as well as reactionary responses of anti-rational, anti-

science thinking (Wright, 2020). The notion of building back better after a disaster emerged as a framework for thinking about a set of best practices to improve existing systems through reconstruction and rehabilitation (Hallegatte et al., 2018). This includes international frameworks for post-disaster recovery, climate change initiatives, and economic stimulus packages by federal governments to reinvigorate an economy, households, and individuals (Chmutina & Cheek, 2021; Kharas, 2010). Relatedly, Roy (2020) observed that pandemics have historically occupied a portal for individuals and society “to break with the past and imagine their world anew” (para. 47).

The national shutdown of the USA in spring 2020 resulted in job loss in several sectors of the economy and contributed to a national level of heightened anxiety and concern (Bichara et al., 2022). During that time, many schools moved to online learning. A cursory glance of teachers’ posts on New York Times website (editorial, 2020), social media sites (Facebook, Instagram, TikTok, and Twitter/X) during the COVID-19 pandemic called attention to the unreasonably high educational and social demands expected of teachers that resulted in lack of sleep, elevated stress, anxiety, and other conditions associated with burnout (Lepore, 2021, 2022). Some users on social media shared facts, opinions, myths, and conspiracy theories with “public health agencies (such as the World Health Organization [WHO] and Center for Disease Control [CDC]), governmental ministries of health as well as academic and private research institutes around the world took to Twitter to educate the public and communicate recommendations for controlling the spread of COVID-19” (Bichara et al., 2022, p. 295).

In spring and autumn 2020, the pandemic brought to the forefront equity issues for people of color and highlighted academic achievement gaps in American schools (Freidus & Turner, 2023; Segal, 2023). Schools implemented initiatives to mitigate some of the devastating and disproportionate impact on school children (Morrissey, 2021; Woolf et al., 2021). Some studies from Australia and France (Jones et al. 2020; Levinson et al., 2020) supported the safe re-opening of schools in the summer of 2020 after online learning in spring the same year, because children were not found to be major transmitters of the virus and the disruption of learning by keeping students home instead of attending school could have life-long effects on their health and earning potential.

The pandemic brought to the fore persistent equity issues regarding access to the internet and technology and disparities that exist in communities when various services students rely on from school are disrupted (Friedrich & Perrotta, 2022). In response, schools provided students with a laptop computer and purchased internet hot spots or paid Wi-Fi to continue delivering the same content online and conducted some classes synchronously over a video (e.g., Zoom). Online learning, a specific form of distance or remote learning, is the process of learning with some or all instructional materials delivered over the Internet, with the teacher facilitating the process by structuring and sometimes sequencing the online activities asynchronously and synchronously (DeCoito & Estaiteyeh, 2022; Leech et al., 2022). Issues of equity are major concerns with online learning. Teachers operating in urban schools and with communities of color were disproportionately impacted. Students in high-poverty households were also less likely to have adequate technical infrastructure, high-speed internet, and quiet learning spaces at home, which were important during periods of online learning (Kuhfeld et al., 2023). Rural and low-income communities have less access to broadband Internet than their urban, suburban, and more affluent

counterparts (DeCoito & Estaiteyeh, 2022). A computer or smartphone internet connection was not stable for some households and students did not log-on for a class or found links to a website or video conducting a real-time class were changed, broken, or not found. In addition, some students did not have a parent or guardian to ensure their child was logging on to a class or submitting assignments on an education platform. While safe at home from the coronavirus, students were sometimes academically adrift, sometimes home alone, and teachers were unable to make visual connections with students when they failed to turn-on their cameras (MacGillis, 2022).

Past attempts to move learning and teaching online do not compare to the efforts that were implemented during the global COVID-19 pandemic (Beard et al., 2023; Bozkurt et al., 2022). There was a transition period—emergency, remote teaching—when teachers moved their lessons to digital platforms during the pandemic (DeCoito & Estaiteyeh, 2022). Many American teachers did not want to return to classroom teaching after schools were closed from March to May 2021 and instruction moved to remote learning because of the uncertainty of the coronavirus’s transmission as well as health and safety concerns for teachers and students in a room that may trigger an outbreak. In addition, not only was student engagement found to be lower in remote settings, but teachers struggled to motivate and engage students during online instruction (Leech et al., 2022). Teachers had to use their existing technological pedagogical content knowledge to pivot from in-person to fully online instruction. High school teachers claimed more success and confidence delivering online instruction compared to elementary and middle school teachers (Ladendorf et al., 2021). Between 2020–2021, academic achievement levels declined most in reading and math relative to pre-pandemic scores amongst elementary students enrolled in high-poverty schools and students of color (Kuhfeld et al., 2023).

CONCEPTUAL FRAMEWORK

To analyze the disruptions and displacement confronting teachers and students during the COVID-19 pandemic, this study adopted Lewin’s (1947) model of organizational change as a conceptual framework. It is a model that has been adopted by other researchers who investigated organizations confronting a crisis (Sarkar & Osiyevskyy, 2018). The three stages of Lewin’s (1947) framework of organizational change relate to a linear progression, moving from “unfreezing” to “change” and then “refreezing” (Hussain et al., 2018). An organization experiencing “unfreezing” undergoes changes and alterations that affects its present state of equilibrium. This aligns with the shut-down of schools during the 2020 pandemic. The second state, “change,” is the introduction of new responses to a crisis. This stage connects to the re-opening of many schools during autumn of 2020. “Refreeze” is the effort to stabilize an organization. The third and final stage is when the coronavirus becomes endemic and educational as well as health institutions stabilize their operations without devoting time and resources to pandemic. This research focuses on the first two stages of Lewin’s (1947) model of organizational change facing schools but speculates on the third stage when teachers reflect on their vision of teaching and learning after the pandemic.

During each of the three stages of Lewin’s (1947) model of organizational change, the pandemic challenged teachers to face specific, unexpected, and nonroutine events that created high levels of uncertainty, conflicts, and crises. Complexity theory provides another

layered lens to analyze emerging or new patterns of behavior and systemic adaptations implemented by teachers and school administrators during the pandemic (Byrne & Callaghan, 2022; Khanal et al., 2021). Complexity theory is concerned with the relationships among the elements or agents “that constitute a particular and sufficiently complex environment or system” (Mason, 2008, p. 27).

Demographics

This case study of Brookline High School (pseudonym) received Institutional Review Board (IRB) approval from a state university in the USA south-east and the county IRB office where Brookline was located (Yin, 2009). Brookline is a relatively large, affluent suburban school serving 1,758 students with a diverse enrollment: 49.6% White, 26.9% Hispanic, 12.7% Black, 5.7% Asian, and 4.7% multiracial students—with 17.1% English language learners (ELL) and 10.5% students with disabilities. According to Brookline’s 2023-2024 school report, compiled by faculty on the comprehensive needs assessment team who “possess knowledge of programs, the capacity to plan and implement the needs assessment, and the ability to ensure stakeholder involvement [such as school council members],” students perform at or above the state level in all areas of end-of-course assessments. However, disaggregated data from the same report revealed that Black, Hispanic, ELL, students from economically disadvantaged backgrounds, and students with disabilities were underperforming academically and did not close the achievement gap in science and math. Brookline’s performing-arts building and sports facility supports the school’s focus on “Triple A Excellence” in academics, athletics, and the arts. The 2023-2024 school report identified teacher professional learning as an ongoing strategy to meet the social, emotional, physical development, safety, and diverse needs of students as well as differentiation for and among students to improve their academic achievement.

Prior to the pandemic, Brookline’s attempt to deliver a supportive, wrap-around education that emphasized academic growth as well as social, emotional, health, and physical development of the whole student was diminished during the pandemic. When COVID-19 was identified as a pandemic in March 2020, Brookline moved all instruction to an online platform and closed the school until it reopened six months later, in August. During the closure, students received a school laptop if they did not possess one to access course content and continue their learning online. The school organized a schedule for families to collect free breakfast and lunch provided by the county. In some cases, administrators and teachers delivered food to the homes of student’s families in need. The school also coordinated a drive-through graduation ceremony in an attempt to observe a milestone event for graduating students. The school’s yearbook for 2021 displayed an image of a student wearing a mask on its cover.

When Brookline High School re-opened in August, parents or caregivers had the option of selecting in-class instruction for their child or online instruction to avoid in-person interactions. In school, teachers and students followed strict mask-wearing procedures, observed social distancing while walking in the hallways and sitting in classroom, utilized hand sanitizers, maintained a lunch seating plan, and regularly sanitized tables and desks. Classroom desks were spaced six-feet apart and students were to observe the same six-foot bubble to avoid touching or arm holding when walking school halls. In addition, the school prepared a *COVID-19 pandemic: Reporting exposures checklist* document that listed twelve points describing who was to be contacted if a staff member or student contracted the virus, with a bolded

statement in red declaring, “Whoever receives notification of a staff member or student with a POSITIVE TEST should immediately contact the school nurse and a flow-chart of seven levels listing reporting exposures beginning with the school nurse.”

Participants and Sampling Technique

Brookline assistant principal Ms. Loring (pseudonyms for all faculty identified) facilitated the selection of teachers to participate in the study. Her selection process was based on identifying individuals who taught in a diversity of subject areas (science, special education, and English to speakers of other languages), possessed more than three years teaching experience, and interacted with a variety of students (special education, on-level, and honors). She contacted teachers with whom she had developed a professional relationship for more than two years through classroom observations and collaborated in team-planning sessions. She anticipated that each teacher would provide “honest and genuine” response in the interview with the researcher (the first author) about their teaching experiences. Ms. Loring emailed or approached each teacher to take part in the study and communicated that their participation in the study was voluntary, would not receive an incentive or compensation from the administrator, and was not part of their employment or evaluation. Two teachers declined Ms. Loring’s invitation to participate in the study, explaining that it was additional responsibility that they did not want to fulfill.

Between fall 2020 and spring 2021, semi-structured interviews were conducted with the school’s assistant principal, Ms. Loring, and ten classroom teachers (Creswell, 2005; Marshall & Rossman, 2016; Rubin & Rubin, 2005; Saldana, 2009; Yin, 2009). Students and parents or caregivers were not interviewed in this study nor were classroom observations conducted as Brookline was only accessible to teachers, staff, administrators, and students during the 2020-2021 school year to control the spread of the coronavirus. In some cases, caregivers could attend an individualized education program meeting on the school campus to meet with teachers. Other visitors, including this researcher, were not permitted entry into the school.

Interviewed teachers taught biology, environmental science, physics and ecology, Spanish, and special education. Out of the two male teachers and nine female participants, two were Hispanic and one was one African American. Ms. Loring participated in nine in-depth telephone conversations conducted over the course of the study.

Table 1 identifies the participating teachers’ background and subject area of instruction.

Data Collection and Analysis

Forty-five-minute interviews were conducted by telephone or via Zoom. At the start of each interview, permission was sought from each participating teachers to record the conversation. They were also informed that the digital recording would be destroyed after the interview was transcribed. Each interviewee was told that they did not have to answer any question, and they could stop the interview at any time. Participation was completely voluntary, and teachers were told that pseudonyms would be applied to research participants and the school for anonymity when reporting findings from the study. Interview questions were informed by emerging social, education, health, technological, and structural disruptions reported during the COVID-19 pandemic in academic (Ladendorf et al., 2021; Poulin, 2020; Ravitch, 2021; Woolf et al., 2021) and mainstream media articles (Bryant et al., 2020; Jones et al., 2020; MacGillis, 2020; Wright, 2020)

Table 1. Participating teachers

Teacher	Subject of instruction	Gender	Race	Years of experience
Ms. Botting	Physics and ecology	Female	Caucasian	13
Ms. Calling	Special education	Female	Caucasian	5 (teacher of the year 2019)
Ms. Dealing	Special education	Female	Caucasian	18
Ms. Easling	Special education (previously taught history, world history, & the USA geography)	Female	Caucasian	18 (department head)
Ms. Farming	Spanish	Female	Hispanic	15
Ms. Goting	Biology	Female	Caucasian	6
Ms. Hearting	School counsellor (previously taught biology)	Female	Caucasian	13 (department head)
Ms. Isling	Spanish	Female	Caucasian	20
Mr. Joling	Spanish	Male	Caucasian	10
Mr. Keeling	Environmental science	Male	African-American	14
Ms. Loring	Assistant Principal	Female	Hispanic	32

as well as regular conversations with Ms. Loring about the challenges and changes confronting Brookline High School. The interview questions asked Brookline teachers to share their experiences at the start of the pandemic, working and living through the pandemic, and visions of teaching and schooling after the pandemic:

1. What were the social, technological, or other concerns confronting the school since the emergence of the COVID-19 pandemic?
2. What was your response to those same issues and changes implemented by the school?
3. What were the social, technological, or instructional changes implemented when the school returned to in-person instruction?
4. What were the consequences of those changes on your instruction and students' learning?
5. How were unanticipated issues during the pandemic addressed by you, students, colleagues, and administrators?
6. What instructional or institutional practices should remain after the pandemic?

During two of the ten interviews, the participating teachers turned on their cellphone camera or laptop camera to show the spacing of desks in the classroom and numerous signs describing social distancing protocol in the school.

Content analyses of the gathered qualitative data was coded and analyzed to illuminate reoccurring themes using a phenomenological and hermeneutic process (Lareau, 2021; Miles & Huberman, 1994; Saldana, 2009; van Manen, 1990). After several reoccurring themes were identified through constant comparison, they were located under one of the three stages of Lewin's (1947) organizational change and the emergent relationship was analyzed through complexity theory. Recurring themes included technology, safety and health concerns, declining academic performance, concern for social and emotional health issues in students, state and federal policies impacting schools, community resources available for students, and community connections to households.

RESULTS

Two of the six interview questions invited Brookline faculty to share the professional or personal disequilibrium they confronted during the 'unfreezing' period of change beginning in spring 2020: What were the social, technological, or other concerns confronting the

school since the emergence of the COVID-19 pandemic? What was your response to those same issues and changes implemented by the school? Brookline faculty reflected on the numerous disruptions that resulted not only in substantive changes but conflicts which they had to navigate during the online instruction in spring 2020 and in-person teaching beginning autumn 2020. The impact of delivering lessons online was immediately felt during the 'unfreezing' stage when in-person classroom instruction shifted fully to online teaching and learning. In response to this change, the county introduced accelerated training sessions to equip teachers with the tools to deliver the content and assessments through an online learning management system and provided follow-up training sessions. Interviewed teachers described this move as unprecedented in their teaching career and triggered an array of unforeseen social, technological, and pedagogical consequences. For one educator reflecting on the interview question about the social, technological, or instructional changes and consequences impacting one's instruction and students' learning that were implemented when the school returned to in-person instruction, online and in-person teaching provided an opportunity to try and implement a new instructional approach that cultivated a new mindset of flexibility and problem-solving:

I don't feel like a veteran teacher in a rut. This year is not a rut. Even though there are frustrations and challenges, I like to try new things. The problem-solving has increased this year. This year, you have to be okay to mess up and fail because it's the only way we are going to learn. One of my sayings for this year is, "You've got be okay with messing up, because we will figure out how to fix it. But we will never learn anything new or figure out how to get though it if we don't try it" (Ms. Isling).

Many other teachers, however, expressed frustration and identified specific challenges preparing and delivering content online for students to learn at a distance. Teachers claimed that the ability of students to access technology at home varied from household to household, with some students unable to download materials, a few households unable to connect to the Internet, and one family possessing only one computer for four children to access. While a few teachers offered synchronous classes via Zoom, they were not required to do so, and many students did not attend a synchronous Zoom class. Teachers recognized the pandemic affected high-risk students who "are more damaged socially or economically", said one teacher, and sought ways to provide different options for students to complete assigned homework, to raise a low grade, or pass a course. Interviewed teachers stated that several parents lost their jobs which prompted some students to find work at a local

Target or Walmart to “help their parents pay groceries and the bills.” According to Ms. Loring, who conducted home visits to dissuade Hispanic students from dropping out of school, some students experienced a disconnect with online learning that was associated with social isolation at home. During this time, there were often no caregivers to monitor student’s online studies since caregivers were working one or multiple jobs or, in other cases, siblings were assisting one another with their homework or sharing the computer.

When in-person instruction returned to Brookline High School in fall 2020, innovative instructional adaptations were adopted, and flexible attendance policies implemented. It was during the ‘change’ phase under Lewin’s (1947) model that allowed many schools to reopen and return to in-person instruction while observing enforced patterns of social distancing when interacting with others. Teachers shared their reactions to the following interview questions when in-person instruction returned: What were the social, technological, or instructional changes implemented when the school returned to in-person instruction? What were the consequences of those changes on your instruction and students’ learning? Brookline High School provided parents or caregivers the option of continuing remote learning for their child or returning to in-person instruction. Organizational change for in-person instruction at Brookline focused on creating a safe and healthy learning environment for faculty and students that followed national health protocols such as frequently handwashing, maintaining a social distance of six feet when near others, and always wearing a face mask. Interviewed teachers claimed that they, their colleagues, and students were compliant with these new measures to prevent the spread of the virus: “that’s what the school says, and top scientist say and (the) CDC and Prevention”; “we just want to be safe and there’s only a certain number of things we can control.” However, some teachers were resistant to the new protocol “because of their beliefs” or possessed coronavirus fatigue: “I’m tired of wearing (a mask), and we’re just ready for it to be over.” One teacher suggested that students were more amenable to the new social conditions than school faculty because they were more flexible. While interviewed teachers were eager to return to in-person teaching, some were reticent and remained concerned about contracting the coronavirus from students or colleagues as well as bringing the virus home to risk the health of their family.

Thirty percent of the teachers claimed during the ‘change’ period from autumn 2020 to the end of spring 2021 that some families, particularly people of color, experienced heightened levels of stress and anxiety after the killing of George Floyd in May 2020 (and Trayvon Martin, Eric Garner, Freddie Gray, Breonna Taylor), the election of Donald Trump, the January 6th attack on the USA Capital, removal of some Confederate monuments, and contraction of jobs. The same teachers stated that these and other social, political, and economic issues negatively impacted their emotional and mental health as well as the multiple, and sometimes conflicting, messages delivered by state and federal officials about health and safety requirements to prevent the transmission of the COVID-19 virus when in school or in public spaces.

The major challenge confronting teachers during this period was managing the demands of teaching in-person and online. Interviewed teachers distinguished their pre-pandemic instruction with in-person teaching by noting that lessons were delivered through direct instruction during the change period from 2020 to 2021 rather than adopting pre-pandemic student-centered activities or center-based

learning which could not be implement during the pandemic for reasons of social distancing. Teachers explained this pedagogical shift by noting that direct instruction allowed for a physical distance between the teacher and students and may reduce the chance of anyone contracting the virus. One teacher claimed he sat behind his desk much more “because of the six feet (social distancing) thing.” Another claimed she walked among the students “but not nearly as much.” A third educator said she feared interacting with students early in the school year, but later became “more comfortable with this pandemic, and I (would) go to them and asked them, “do you have any questions?”” (Ms. Farming). One interviewed teacher worried if she would receive a lower assessment from an administrator’s classroom observation because of her classroom instruction that was now teacher-centered rather than student-focused before the pandemic, rhetorically reflecting on her instruction: “Am I doing a good job?”

Interviewed teachers stated they were physically and emotionally exhausted teaching in class while also preparing online material in the evening for the next day’s lessons and responding to students’ and caregiver’s e-mailed questions throughout the day. Thirty percent of the teachers speculated that their colleagues would leave the profession if both models of instruction continued in the 2021-2022 school year.

I didn’t want to go back to fully digital because it was extreme; it was so much more work. I will do what I need to do and, as I said before, I got the greatest job on the planet, but I didn’t want to be a digital teacher. I don’t want to teach online (Ms. Calling).

This is the new normal (online and in person instruction), (but) I don’t see that as being the new normal (Ms. Dealing).

Everyone is very overworked, but no one wants to acknowledge that teachers are being overworked. We’re exhausted, but we don’t have the time to be exhausted (because) the kids are depending on you, and you don’t want to let them down (Ms. Easling).

We have to do videos for the online students, attend meetings, we have to answer emails, we have to grade. They (administrators) are demanding so much from us, and they know we won’t say no (Ms. Farming).

We’re running two types of schools—not double faculty, obviously. It’s just draining on the faculty and staff all around as well as making sure the students’ needs are still being met (Ms. Hearting).

When contrasting in-person instruction with on-line teaching, teachers emphasized it was easier to develop and maintain a relationship with a student in-person as well as address academic or social issues. Relatedly, some teachers critiqued the school’s lenient attendance policy which allowed school athletes to attend online classes to avoid the possibility of contracting the coronavirus in-person but still participating in after-school practices. One educator said a conflicting message was communicated through this concession that prioritized sports over a student’s education through online learning. However, Ms. Loring noted that high-achieving as well as eleventh- and twelfth-grade students who were applying to university also selected online instruction not only to avoid contracting the virus or risk becoming contract-traced, but assumed online learning would be easier than in-

person instruction. Yet, according to Ms. Loring, “they realized remote learning was more difficult than in-person instruction.”

Students who opted for online instruction often received lower grades than students who attended in-person and were perceived by some teachers to have a gap in their social and emotional learning (SEL) because of prolonged periods of isolation at home. Two educators reflected on this dynamic.

(There are) some students that are successful online. There are some students that are not successful (and) there’s a segment of students who thought “hey, I can stay home and get up when I want and work. It’s going to be like last semester, in May. It’s going to be as easy as spring.” But then they quickly realize it’s not the same. A lot of them realize—they told me—what kind of people they are. They are self-motivated but (they) have to be in class with the teacher to tell them what to do (Mr. Keeling).

I have students that started online and then, because their grades were bad, their parents decided to bring them back to school. And you can tell they are shy and not socializing as they used to do before. So, I think that is something we have to address as a school and district (and) we have to help (students) with socializing relationships (Ms. Farming).

During the ‘change’ phase, interviewed faculty cited lower test scores. Interviewed teachers pointed to social media posts from some parents who claimed that their child’s needs were not being met with in-person instruction. To address this, Brookline High School implemented a credit-repair system that provided remediation and allowed a student to attend an after-school class to receive individual instruction. Thirty percent of teachers speculated that online learners performed lower academically as a result of poor self-discipline, lack of motivation, and absence of a parent or caregiver to monitor and support their child’s online learning. A special educator (Ms. Botting) noted that special education students performed lower online because of fewer opportunities for social interaction and organized learning activities that embedded manipulatives while at school. For some teachers, students’ declining academic performance was compounded by their disrupted social skills from online learning. Interviewed teachers claimed some students were quiet, shy, and reluctant to socialize with peers when they returned to in-person instruction. In contrast, interviewed teachers said students who attended in-person classes completed their assignments more frequently than online learners because of their access to and assistance from a classroom teacher.

In the final interview questions, teachers were asked to advance a vision of schooling, teaching, and learning post-COVID-19: How were unanticipated issues during the pandemic addressed by you, students, colleagues, and administrators? What instructional or institutional practices should remain after the pandemic? Teachers were prompted to think about schooling after the pandemic, during the ‘refreeze’ stage, which is characterized by organizational stability through modeling and integrating new behavior. Interviewed teachers envisioned schools returning to pre-pandemic patterns of in-person instruction after the pandemic. The school administrator and interviewed faculty underscored the importance of in-person instruction as the optimal setting for students to develop academically and foster their social and emotional skills in a safe, supportive learning environment.

COVID-19 and online learning has really reinforced what we suspected: it just really put an importance on face-to-face learning (Mr. Keeling).

They (special education students) need to experience school in a very real and tactile way. They just can’t have that through the computer. But I have three children of my own who aren’t in special education, (and) they need that, too. And they need to grow socially and emotionally, and they just can’t do that being alone in their bedroom (when online). They need to learn how to converse with people (Ms. Botting).

Interviewed faculty claimed that distance education could serve as an alternate platform for students to receive content if there was another national or global crisis or if a student were ill, traveling, or experienced a family emergency. Online teaching is, they noted, too demanding and unsustainable to require teachers to deliver in-person and on-line instruction concurrently. Interviewed teachers noted that delivering a curriculum online required not only additional preparation time and training but greater communication from the school to inform parents and caregivers about student learning outcomes and online expectations. Interviewed teachers emphasized that online learning was not a substitute for in-person instruction to develop a child’s academic, social, emotional, and physical skills. In this connection, Brookline High School administrator Ms. Loring emphasized the need for hiring more school counselors and social workers who would occupy an expanded role responding to students’ emotional and social needs after the pandemic. She also wanted to forge stronger connections and partnerships with community organizations and agencies such as libraries, food banks, and internet providers to offer more resources and opportunities for students and their parents.

DISCUSSION

The COVID-19 pandemic provides a unique and historic opportunity to identify what education can be, what schools can do differently, and how students’ learning can be improved post-pandemic. While the 1918 influenza pandemic reinforced the status quo and did not lead to deep change (Bristow, 2017), thinking about the systemic disruptions that impacted schools during the 2020-2021 pandemic present an opportunity for administrators and teachers to make choices about how to respond to future disasters and identify targeted strategies and solutions to reimagine education as a human right when schools build back better (Poulin, 2020; UNESCO, 2021). In contrast to the 1918 pandemic, technological innovations allowed many schools to resume online instruction during the COVID-19 pandemic. However, the introduction of online instruction exposed existing issues of inequity in communities of color and in high poverty households regarding access to the same technology and internet services. In comparison with the 1918 pandemic, the existence of international organizations such as UNESCO, the WHO, and the SDGs set by the United Nations General Assembly in 2015, for example, occupy a role to address the most urgent and interrelated problems of the world, including the COVID-19 pandemic. Before the 2020-2021 pandemic, for example, Sachs et al. (2019) argued that to achieve SDG #4 (education) and the other sixteen SDGs, it would involve not only an expansion and transformation of education systems but also similar structural changes across all sectors in society through dialogue

between stakeholders and transdisciplinary research. Relatedly, UNESCO (2022) called for international, long-term initiatives that involved an expansion of digital learning coupled with greater access to education for crisis-affected children and youth.

This case study provides an analysis of instructional strategies and administrative practices adopted during the 2020-2021 COVID-19 pandemic as well as perceived consequences to those same initiatives. In each change adopted during the two stages of organizational disruption there was an attempt to integrate innovative instructional practices in response to unique circumstances and patterns of behavior. The 'unfreezing' stage answered the research questions related to organizational change and instructional adaptation. It was during this period that heralded a shift from in-person to remote learning which resulted in uncertainty and adaptation. During the second 'change' stage, teachers adopted a modified pedagogical relationship that integrated in-person classes with online instruction. It resulted in increased professional and personal demands, intensified implementation of health measures to ensure a safe learning environment, and focused adoption of direct instruction in place of student-centered learning.

Compounding these changing relationships were shifting health policies and practices from the state and federal governments, disrupting social, economic, and political practices, and declining literacy, numeracy, and social skills - particularly in students of color. Data from the National Assessment of Educational Progress (2022) supports teachers reported learning loss in students and increased social and emotional stress for students during this time. During the 'unfreezing' and 'change' stages, a number of proposals were advanced to mitigate lower literacy and numeracy scores and social isolation: provide accessible child-care, eliminate summer holidays to extend the school calendar, provide breakfast and lunch for all students, support students' and faculty mental health through an expanded school counseling service, install ventilation and air purifying systems for a cleaner learning environment, mitigate equity issues concerning access to technology and internet connectivity, encourage parental participation, and conduct regular check-in calls or virtual home visits (Bryant et al., 2020; Leech et al., 2022; Letzel et al., 2022; Morrissey, 2021). Each stage of the pandemic required teachers and administrators to adapt to non-traditional practices which elevated a set of values focused on flexibility, resilience, problem-solving, critical thinking, technological innovation, adaptation, and accommodation.

The changes identified by Brookline High School teachers and administrator revealed how teachers navigated some of the systemic disruptions during the COVID-19 pandemic and illuminated the consequences of those disruptions on teaching and student learning. Interviewed teachers and administrator emphasized the importance of and preference for in-person instruction over online learning to foster students' academic growth and cultivate their SEL. However, they speculated that after the pandemic—during the 'refreeze' stage when change would be instituted to stabilize an organization—remote learning may occupy a larger instructional role to providing additional educational options for students and parents or caregivers. Brookline teachers said hybrid instruction would necessitate continuous professional development to foster effective online instruction in conjunction with ongoing communication by school administrators with parents or caregivers about best online student practices. These findings corroborate previous research that recommends continued

professional development for teachers to learn effective online instructional strategies, how to integrate successful approaches when interacting with students asynchronously, and strategies to effectively integrate online evaluation methods (Beard et al., 2023; Bozkurt et al., 2022; DeCoito & Estaiteyeh, 2022; Friedrich & Perrotta, 2022; Kuhfeld et al., 2023; Leech et al., 2022; Pressley & Ha, 2022). Professional development may address teachers' dissatisfaction with and negative attitudes toward online instruction which could be impacted by teachers' past experiences and evolving knowledge of technology (Bottiani et al., 2019; DeCoito & Estaiteyeh, 2022; Johnson et al., 2023; Ladendorf et al., 2021; Skaalvik & Skaalvik, 2015; Sokal et al., 2021). Taken together, these opportunities may limit the stress put on teachers, reduce burnout and turnover, and support teacher self-efficacy (Pressley & Ha, 2022).

In the post-pandemic 'refreeze' stage of schooling, a reimagined education system would ensure an inclusive, equitable, and quality education for all (Bozkurt et al., 2022; Read & Wert, 2022). One post-pandemic instructional proposal, called a "flux pedagogy", integrates critical pedagogy frameworks into a "transformative and responsive teaching approach ... (using) participatory approaches and critical pedagogy practices such as racial literacy storytelling, communal re-storying, counter-storytelling, and critical dialogic engagement peer inquiry groups" to address equity (Ravitch, 2021, p. 3-4). On a curricular level, others have recommended a shift in the SEL curricula from increasing students' self-awareness, self-management, responsible decision-making, relationship skills, and social awareness to a post-pandemic, proactive perspective of SEL which facilitates the growth and wellbeing of all children, especially Black, Indigenous, and People of Color, through an antiracist social emotional justice learning (ASEJL) (Mayes et al., 2022; Schultz & Love, 2022). Post-pandemic teaching and learning would involve the inclusion of professional development workshops in schools and in partnership with educator preparation programs that target online instruction and topics which address equity and inclusion such as an ASEJL program (Bryant et al.; Christensen, et al., 2008; Fabionar, 2020; Hammond et al., 2021). Educator preparation programs should provide future teachers with the technology training, skills, and opportunities to practice remote instruction and create digital materials to effectively deliver content online (Schultz & Love, 2022).

While findings from this case study are not generalizable because of the small sample size, this case study underscores the need for schools to think creatively during post-pandemic and identify ways to narrow the equity gaps. Rather than returning to 'school as it was before', lessons learned from the COVID-19 necessitates rethinking some traditional ways of broadening educational opportunities and narrowing the achievement gap for children of color. Future research may compare the initiatives implemented after the COVID-19 pandemic in one county or school division to another to assess the impact on students' academic or social skills. Relatedly, longitudinal research may study the long-term effects of initiatives to develop students' academic and social skills implemented by a school or an innovative instructional approach adopted after the 2020-2021 pandemic.

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Ethics declaration: The authors declared that this research adhered to ethical guidelines outlined by the University of North Georgia's Institutional Review Board (IRB) and received approval under protocol number 2020-120-K12. Participants received a consent form that described the study, notified them that their participation in the study was completely voluntary, information about their identify disclosed in an interview would not be shared with anyone, and personal data shared in the interview would be transcribed then stored on a university password-protected computer with no identifying characteristics linked to the transcription. Participants were also informed that the audio file of an interview would be permanently destroyed, and information gathered during the interview would be reported anonymously. Participants signed the consent form if they voluntarily agreed to participate in an interview. Interviewed participants were provided opportunities to ask questions about the study. Participants were neither paid nor received any compensation for taking part in the study. They were told that sharing their knowledge and experiences would benefit other educators, schools, and counties by contributing to a deeper understanding of how a high school responded to the COVID-19 pandemic.

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REFERENCES

- Barry, J. M. (2004). *The great influenza: The story of the deadliest pandemic in history*. Penguin.
- Beard, K. S., Vakil, J. B., Chao, T., & Hilty, C. D. (2023). Time for change: Understanding teacher social-emotional learning supports for anti-racism and student well-being during COVID-19, and beyond. *Education and Urban Society*, 55(7), 825–843. <https://doi.org/10.1177/00131245211062527>
- Bichara, B., Dagher, Z., & Fang, H. (2022). What do COVID-19 tweets reveal about public engagement with nature of science? *Science & Education*, 31, 293–323. <https://doi.org/10.1007/s11191-021-00233-y>
- Bill & Melinda Gates Foundation. (2020). COVID-19: A global perspective. 2020 goalkeepers report. *Gates Foundation*. https://www.gatesfoundation.org/goalkeepers/downloads/2020-report/report_a4_en.pdf
- Bottiani, J. H., Duran, C. A. K., Pas, E. T., & Bradshaw, C. P. (2019). Teacher stress and burnout in urban middle schools: Associations with job demands resources, and effective classroom practices. *Journal of School Psychology*, 77, 36–51. <https://doi.org/10.1016/j.jsp.2019.10.002>
- Bozkurt, A., Karakaya, K., Turk, M., Karakaya, O., & Castellanos-Reyes, D. (2022). The impact of COVID-19 on education: A meta-narrative review. *TechTrends*, 66, 883–896. <https://doi.org/10.1007/s11528-022-00759-0>
- Bristow, N. (2017). *American pandemic: The lost worlds of the 1918 influenza epidemic*. Oxford University Press.
- Bryant, J., Chen, L.-K., Dorn, E., & Hall, S. (2020). School-system priorities in the age of coronavirus. McKinsey & Co.
- Byrne, D., & Callaghan, G. (Eds.). (2022). *Complexity theory and the social sciences: The state of the art*. Routledge. <https://doi.org/10.4324/9781003213574>
- Chmutina, K., & Cheek, W. (2021). Build back better for whom? How neoliberalism (re)creates disaster risks. *Current Affairs*. <https://www.currentaffairs.org/2021/01/build-back-better-for-whom-how-neoliberalism-recreates-disaster-risks>
- Christensen, C. M., Horn, M. B., & Johnson, C. W. (2008). *Disrupting class: How disruptive innovation will change the way the world learns*. McGraw Hill.
- Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Merrill.
- DeCoito, I., & Estaiteyeh, M. (2022). Transitioning to online teaching during the COVID-19 pandemic: An exploration of STEM teachers' views, successes, and challenges. *Journal of Science Education and Technology*, 31, 340–356. <https://doi.org/10.1007/s10956-022-09958-z>
- Fabionar, J. O. (2020). Responding to the moment: Social justice teacher education for systems change. *Teacher Education Quarterly*, 47(3), 145–150.
- Freidus, A., & Turner, E. O. (2023). Contested justice: Rethinking educational equity through New York City's COVID-19 school reopening debates. *Educational Evaluation and Policy Analysis*, 45(3), 437–463. <https://doi.org/10.3102/01623737221121802>
- Friedrich, J. C., & Perrotta, K. S. (2022). Head above water: A study of K-12 teachers' perspectives on emergency remote learning during the COVID-19 pandemic. *Curriculum and Teaching Dialogue*, 24(1 & 2), 191–209.
- Hallegatte, S., Maruyama Rentschler, J. E., & Walsh, B. J. (2018). Building back better: Achieving resilience through stronger, faster, and more inclusive post-disaster reconstruction. *World Bank*. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/420321528985115831/Building-back-better-achieving-resilience-through-stronger-faster-and-more-inclusive-post-disaster-reconstruction>
- Hammond, J. W., Brownell, S. E., Kedharnath, N. A., Cheng, S. J., & Byrd, W. C. (2021). Why the term 'JEDI' is problematic for describing programs that promote justice, equity, diversity and inclusion. *Scientific America*. <https://www.scientificamerican.com/article/why-the-term-jedi-is-problematic-for-describing-programs-that-promote-justice-equity-diversity-and-inclusion/>
- Harris, D.N. (2020). *Charter school city: What the end of traditional public schools in New Orleans means for American education*. The University of Chicago Press. <https://doi.org/10.7208/chicago/9780226694788.001.0001>
- Hussain, S. T., Lei, S., Akram, T., Haider, M. J., Hussain, S. H., & Ali, M. (2018). Kurt Lewin's change model: A critical review of the role of leadership and employee involvement in organizational change. *Journal of Innovation & Knowledge*, 3, 123–127. <https://doi.org/10.1016/j.jik.2016.07.002>
- Johnson, C., Walton, J., Strickler, L., & Elliott, J. (2023). Online teaching in K-12 education in the United States: A systematic review. *Review of Educational Research*, 93(3), 353–411. <https://doi.org/10.3102/00346543221105550>

- Jones, E., Young, A., Clevenger, K., Salimifard, P., Wu, E., Lahaie Luna, M., Lahvis, M., Lang, J., Bliss, M., Azimi, P., Cedeno-Laurent, J., Wilson, C., & Allen, J. (2020). *Healthy schools: Risk reduction strategies for reopening schools*. Harvard T.H. Chan School of Public Health Healthy Buildings Program. <https://doi.org/10.13140/RG.2.2.22333.49127>
- Khanal, P., Bento, F., & Tagliabue, M. (2021). A scoping review of organizational responses to the COVID-19 pandemic in schools: A complex systems perspective. *Education Sciences*, 11(3), Article 115. <https://doi.org/10.3390/educsci11030115>
- Kharas, H. (2010). "Build back better" in Haiti: Lessons from the Indonesian tsunami. *Brookings*. <https://www.brookings.edu/opinions/build-back-better-in-haiti-lessons-from-the-indonesian-tsunami/>
- Kuhfeld, M., Lewis, K., & Peltier, T. (2023). Reading achievement declines during the COVID-19 pandemic: Evidence from 5 million U.S. students in grades 3-8. *Reading and Writing*, 36, 245–261. <https://doi.org/10.1007/s11145-022-10345-8>
- Ladendorf, K., Muehler, H., Xie, Y., & Hinderliter, H. (2021). Teacher perspectives of self-efficacy and remote learning due to the emergency school closings of 2020. *Educational Media International*, 58(2), 124–144. <https://doi.org/10.1080/09523987.2021.1930481>
- Lareau, A. (2021). *Listening to people: A practical guide to interviewing, participant observation, data analysis, and writing it all up*. The University of Chicago Press. <https://doi.org/10.7208/chicago/9780226806600.001.0001>
- Leech, N., Gullet, S., Cummings, M. H., & Haug, C. (2022). The challenges of remote K-12 education during the COVID-19 pandemic: Differences by grade level. *Online Learning*, 26(1), 245–267. <https://doi.org/10.24059/olj.v26i1.2609>
- Lepore, J. (2021). Burnout: Modern affliction of human condition? *The New Yorker*. <https://www.newyorker.com/magazine/2021/05/24/burnout-modern-affliction-or-human-condition>
- Lepore, J. (2022). Why the school wars still rage. *The New Yorker*. <https://www.newyorker.com/magazine/2022/03/21/why-the-school-wars-still-rage>
- Letzel, V., Pozas, M., & Besa, K.-S. (2022). Parental evaluation of teachers' competences and characteristics during COVID-19 pandemic homeschooling. *Social Psychology of Education*, 25, 929–950. <https://doi.org/10.1007/s11218-022-09701-x>
- Levinson, M., Cevik, M., & Lipsitch, M. (2020). Reopening primary schools during the pandemic. *The New England Journal of Medicine*, 383(10), 981–985. <https://doi.org/10.1056/NEJMms2024920>
- Lewin, K. (1947). Frontiers in group dynamics: Concept, method and reality in social science, social equilibria and social change. *Human Relations*, 1(1), 5–41. <https://doi.org/10.1177/001872674700100103>
- MacGillis, A. (2020). The students left behind by remote learning. *The New Yorker*. <https://www.newyorker.com/magazine/2020/10/05/the-students-left-behind-by-remote-learning>
- Marshall, C., & Rossman, G. B. (2015). *Designing qualitative research*. SAGE.
- Mason, M. (2008). What is complexity theory and what are its implications for educational change? *Educational Philosophy and Theory*, 40(1), 35–49. <https://doi.org/10.1111/j.1469-5812.2007.00413.x>
- Mayes, R., Pianta, R. O., Ogblesby, A., & Zyromski, B. (2022). Principles of antiracist social emotional justice learning. *Theory into Practice*, 61(2), 178–187. <https://doi.org/10.1080/00405841.2022.2036063>
- Meinck, S., Fraillon, J., & Strietholt, R. (Eds.). (2022). The impact of the COVID-19 pandemic on education: International evidence from the responses to educational disruption survey (REDS). *UNESCO*. <https://unesdoc.unesco.org/ark:/48223/pf0000380398/PDF/380398eng.pdf.multi>
- Miles, M. B., & Huberman, M. A. (1994). *Qualitative data analysis*. SAGE.
- Morrissey, T. (2021). It's time to give our kids the education they deserve. *The Hill*. <https://thehill.com/opinion/education/548277-its-time-to-give-our-kids-the-education-they-deserve>
- National Assessment of Educational Progress. (2022). Student performance across subjects. *The Nation's Report Card*. <https://www.nationsreportcard.gov/>
- Poulin, J. M. (2020). Responding to crises: Constructing a response through organizational change. *Arts Education Policy Review*, 123(1), 6–13. <https://doi.org/10.1080/10632913.2020.1844832>
- Pressley, T., & Ha, C. (2022). Teacher exhaustion during COVID-19: Exploring the role of administrators, self-efficacy, and anxiety. *The Teacher Educator*, 57(1), 61–78. <https://doi.org/10.1080/08878730.2021.1995094>
- Ravitch, S. M. (2021). FLUX pedagogy: Transforming teaching and learning during coronavirus. *Urban Education*, 17, 1–15.
- Read, A., & Wert, K. (2022). Broadband access still a challenge in rural affordable housing. *Pew Trusts*. <https://www.pewtrusts.org/en/research-and-analysis/articles/2022/12/08/broadband-access-still-a-challenge-in-rural-affordable-housing>
- Roy, A. (2020). The pandemic is a portal. *Financial Times*. <https://www.ft.com/content/10d8f5e8-74eb-11ea-95fe-fcd274e920ca>
- Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing* (2nd ed.). Thousand Oaks.
- Sachs, J. D., Schmidt-Traub, G., Mazzucato, M., Messner, D., Nakicenovic, N., & Rockström, J. (2019). Six transformations to achieve the sustainable development goals. *Nature Sustainability*, 2, 805–814. <https://doi.org/10.1038/s41893-019-0352-9>
- Saldana, J. (2009). *The coding manual for qualitative researchers*. SAGE.
- Sarkar, S., & Osiyevskyy, O. (2018). Organizational change and rigidity during crisis: A review of the paradox. *European Management Journal*, 36, 47–58. <https://doi.org/10.1016/j.emj.2017.03.007>
- Schultz, S., & Love, K. (2022). How COVID-19 pandemic experiences can inform teacher education and professional development practices. *Global Education Review*, 9(3), 38–57.
- Segal, M. (2023). Nurturing the literacy lives of boys of color during COVID-19. *Journal of Literacy Research*, 55(2), 218–241. <https://doi.org/10.1177/1086296X231179368>

- Skaalvik, E. M., & Skaalvik, S. (2015). Job satisfaction, stress and coping strategies in the teaching profession—What do teachers say? *International Education Studies*, 8(3), 181–192. <https://doi.org/10.5539/ies.v8n3p181>
- Sokal, L., Trudel, L. E., & Babb, J. (2021). I've had it! Factors associated with burnout and low organizational commitment in Canadian teachers during the second wave of the COVID-19 pandemic. *International Journal of Educational Research Open*, 2. Article 100023. <https://doi.org/10.1016/j.ijedro.2020.100023>
- UNESCO. (2022). Connected, inclusive and green: How UNESCO wants to transform education. *UNESCO*. <https://www.unesco.org/en/articles/connected-inclusive-and-green-how-unesco-wants-transform-education>
- UNICEF. (2022). Only a third of 10-year-olds globally are estimated to be able to read and understand a simple written story. *UNICEF*. <https://www.unicef.org/bulgaria/en/press-releases/unicef-only-third-10-year-olds-globally-are-estimated-be-able-read-and-understand>
- van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. State University of New York Press.
- Woolf, S. H., Masters, R. K., & Aron, L. Y. (2021). Effect of the COVID-19 pandemic in 2020 on life expectancy across populations in the USA and other high-income countries: Simulations of provisional mortality data. *BMJ*, 373, Article 1334. <https://doi.org/10.1136/bmj.n1343>
- World Bank. (2022). 70% of 10-year-olds now in learning poverty, unable to read and understand a simple text. *World Bank*. <https://www.worldbank.org/en/news/press-release/2022/06/23/70-of-10-year-olds-now-in-learning-poverty-unable-to-read-and-understand-a-simple-text>
- Wright, L. (2020). How pandemics wreak havoc—And open minds. *The New Yorker*. <https://www.newyorker.com/magazine/2020/07/20/how-pandemics-wreak-havoc-and-open-minds>
- Yin, R. K. (2009). *Case study research: Design and methods*. SAGE.