



Bright Spots: A Multiple Case Study of District Strategies for Supporting Student Learning in the Pandemic and Lessons for Policy

May 2023

Education Policy Innovation Collaborative

COLLEGE OF EDUCATION | MICHIGAN STATE UNIVERSITY

236 ERICKSON HALL, 620 FARM LANE, EAST LANSING, MI 48824 | www.EPICedpolicy.org

ACKNOWLEDGEMENTS

The authors wish to acknowledge the many people who graciously gave of their time in support of this effort. We are especially grateful to our partners for their collaboration and thoughtful feedback. In particular, we would like to thank the district and school leaders in Michigan who made time to speak with us and reflect on their experience as leaders during the ongoing COVID-19 pandemic. We are also grateful to Dr. Katharine Strunk and Emily Mohr at the Education Policy Innovation Collaborative (EPIC) for their guidance and support in this research, as well as to Meg Turner who helped us reach out to and recruit leaders for interviews. We would also like to thank Bryant Hopkins and Tara Kilbride for helping us identify our case districts through their analysis of district-level test score data. Finally, we appreciate the Michigan Department of Education for funding and supporting this work.

DISCLAIMER

The Education Policy Innovation Collaborative (EPIC) at Michigan State University is an independent, non-partisan research center that operates as the strategic research partner to the Michigan Department of Education (MDE) and the Center for Educational Performance and Information (CEPI). EPIC conducts original research using a variety of methods that include advanced statistical modeling, representative surveys, interviews, and case study approaches. This research result used data collected and maintained by the Education Policy Innovation Collaborative (EPIC).

Results, information, and opinions solely represent the author(s) and are not endorsed by, nor reflect the views or positions of, grantors, MDE and CEPI, or any employee thereof. All errors are our own.

MAY 2023

Bright Spots: A Multiple Case Study of District Strategies for Supporting Student Learning in the Pandemic and Lessons for Policy

AUTHORS

Ayesha K. Hashim, *EPIC Affiliated Faculty, NWEA*

Hayley Weddle, *EPIC Affiliated Faculty, University of Pittsburgh*

Ogechi N. Irondi, *Doctoral Student, University of Pittsburgh*

Katharine O. Strunk, *EPIC Faculty Director, Professor of Education Policy, MSU*

ABSTRACT

Purpose: Prior research shows wide variation in student learning across contexts during the COVID-19 pandemic, but less is known about *why* such variation occurred or how particular response strategies may help districts navigate future crises.

Research methods: Drawing on crisis leadership and organizational theory, we conducted a multiple case study of pandemic response across five school districts in Michigan that performed better-than-predicted on benchmark assessments during the 2020-21 school year. We interviewed 46 district, school, and teacher leaders involved in pandemic response across our district cases and analyzed data through a comparative case study method.

Findings: Local leaders relied on existing resources such as staff-student relationships, school-family relationships, and curricula and instructional models to address foundational needs stemming from the pandemic and that had demonstrated success in supporting student learning prior to the pandemic. When existing capacity was not aligned to external demands, local leaders leveraged staff expertise, staff collaboration, and school-family relationships to build out new teaching and learning approaches. In-person and hybrid districts adapted to create

safe learning environments, while remote and hybrid districts adapted to use technology to engage students in learning and personalize academic support.

Implications: We contribute new insights on the interplay between leadership and organizational capacity during crisis response. Our findings shed light on pandemic response strategies that other districts can adopt in future crises. Our work also highlights organizational resources that need to be cultivated and distributed equitably across districts to support crisis response.

Bright Spots: A Multiple Case Study of District Strategies For Supporting Student Learning in the Pandemic and Lessons For Policy

INTRODUCTION

Educational crises are becoming increasingly common as schools respond to racial injustice, gun violence, hurricanes, global health pandemics, war, and political instability. These crises, in turn, can have profound effects on schools and students. The COVID-19 pandemic disrupted education in an unprecedented manner and exacerbated student learning inequities (Domina et al., 2022; Haderlein et al., 2021; Kilbride, Hopkins, Strunk, & Yu, 2022). Economically disadvantaged, Black, Latino/a/x, and English learners exhibited lower achievement gains during the 2020-21 and 2021-22 school years relative to their White and more affluent peers, as did students in districts offering remote instruction for longer time periods (Goldhaber et al., 2022; Halloran et al., 2021; Kilbride, Hopkins, Strunk, & Yu, 2022). Research shows wide variation in student learning across contexts during the pandemic (Domina et al., 2022; Kilbride, Hopkins, Strunk, & Yu, 2022; Kogan & Lavertu, 2021; Pier et al., 2021; Sass & Goldring, 2021), but less is known about *why* such variation occurred.

Recently, researchers have begun to explore the crisis response strategies of districts and schools in varied local contexts (Domina et al., 2022; Marsh et al., 2022; De Voto & Superfine, 2023). These studies have documented local conditions strategies that shape crisis response and how particular response strategies can help districts navigate future crises. Expanding on this emerging body of research, we conducted a multiple case study of five Michigan school districts that performed better-than-predicted on benchmark assessments during the 2020-21 school year. Our work offers new and in-depth insights on how leaders leveraged existing organizational resources to weather an unanticipated and disruptive crisis across unique contexts.

Michigan is an apt location for examining local-level response to the pandemic. The state includes 835 public and charter school districts spanning urban, suburban, and rural contexts. It is a politically mixed state with a long history of local control, contributing to stark differences across communities' educational preferences and districts' pandemic-related policies such as instructional modality (Grossmann et al., 2021; Hashim & Weddle, 2022). Within this context, we ask the following questions:

1. How did school districts that demonstrated better-than-predicted gains in student test scores during the 2020-21 school year support student learning?; and
2. How did school districts use existing organizational resources in similar or distinct ways to support student learning?

We find that local leaders relied on existing organizational capacities in similar and different ways to respond to pandemic challenges. Across all districts, leaders committed to existing resources such as staff-student relationships, school-family relationships, and curricula and instructional models that they perceived as addressing foundational needs in their environment and having a proven-track record for supporting student learning prior to the pandemic. In instances when demands from the pandemic were not aligned with existing capacity, leaders leveraged existing resources such as staff expertise, staff collaboration, and school-family relationships to build out new approaches for teaching and learning in distinct ways across in-person, hybrid, and remote modalities. While these strategies worked collectively to support student learning, they required significant time and energy from leaders and educators and contributed to pervasive burnout.

Our findings shed light on response strategies that local leaders can adopt in future crises that are hard to anticipate as well as the associated challenges of these strategies. This work also reveals critical organizational resources for pandemic response that need to be cultivated and equitably distributed across districts *before* new crises unfold. Such investments will require proactive policymaking and leadership which we address in conclusion of this paper.

LITERATURE REVIEW

To ground our inquiry, we draw on prior literature examining local-level decision-making and student outcomes during the COVID-19 pandemic. We then examine emerging research on the use of district and school resources to support student learning in the pandemic.

Local-Level Decision-Making and Student Outcomes During the Pandemic

During the 2020-21 school year, much decision-making about school reopening and instruction amidst the pandemic was situated at the local level. Studies from earlier in the pandemic suggest that political partisanship played a large role in shaping school reopening preferences (Grossman et al., 2020; Grossmann et al., 2021; Lipsitz & Pop-Eleches, 2020). More recent studies suggest that a multitude of factors in addition to politics shaped districts' decision-making, including information uncertainty, COVID-19 spread, health guidelines from federal and state authorities, the decision-making of neighboring districts, teacher demands, and parent preferences (Christian et al., 2022; Singer et al., 2022).

Differences in district decision-making on instructional modality contributed, in part, to inequities in student access to learning opportunities and widening achievement gaps. Camp and colleagues (2022) find that school district policies for instructional modality, political partisanship, parents' perceived risk from the pandemic, and local COVID-19 outbreaks are all associated with the in-person learning racial gap between White students and students of color. Other studies have found more pronounced test scores declines in districts offering more days of remote instruction during the 2020-21 school year, though remote school districts recouped some of these losses upon resuming in-person instruction in the 2021-22 school year (Goldhaber et al., 2022; Kilbride, Hopkins, Strunk, & Yu, 2022; Kuhfeld et al., 2022).

In addition to instructional modality, other conditions at the district and school-levels may have shaped student learning in ways that are less known. In North Carolina, mode of instruction only accounted for a fraction of the variation in lagged learning observed between districts and schools in the state from the 2018-2019 to 2020-2021 school year. Certain districts offering in-person or hybrid instruction experienced substantial learning lags comparable to remote districts in the state, whereas other remote districts experienced negligible learning lags (Domina et al., 2022). While these outlier cases suggest that conditions other than instructional modality likely shaped student learning, there is limited systematic data on these other conditions. NAEP (2022a, 2022b) survey results from fourth and eighth grade students in the 2020-21 school year suggest that local investments in learning resources such as internet connectivity, school supplies, quiet places to work, and regular support from teachers may have supported student learning, even in localities offering remote instruction.

Exploring Districts' Strategies and Organizational Context for Pandemic Response

Results from the recent NAEP surveys suggest that district strategies for supporting student learning could be consequential for student learning. Reports from early in

the pandemic documented in real-time how districts and schools were strategizing and responding to the crisis.

These reports documented patterns across districts and schools for changing end-of-year testing under school accountability policies, providing access to technology, offering remote learning, ensuring equity for students with disabilities and multilingual learners, planning for school reopenings, and attending to students' social and emotional well-being (e.g., DeArmond et al., 2021; Gross et al., 2021; Hashim & Weddle, 2022; Reich et al., 2020; Woulfin & Jones, 2021). They also highlighted best practices for education leaders immersed in crisis such as partnering with families in crisis response (Weddle & Hashim, 2022), and developing anti-racist instructional policies and practices (Rigby et al., 2020). Intended to provide timely information on evolving pandemic conditions, these reports were largely descriptive in nature. As Jabbar and colleagues (2023) note, missing from this early body of work is the use of theory to interrogate how organizational conditions and context shape pandemic response across diverse communities.

Recently, studies have documented the role of existing organizational capacity in shaping pandemic response. Some studies have emphasized crisis preparedness in the form of emergency school closure plans, technology for remote learning, and strategies for communicating with families; suggesting that existing infrastructure and policy may be critical for crisis response (DeMatthews et al., 2021; Ondrasek et al., 2021). Other studies have pointed to the existing skills or expertise of school-level actors including the willingness of teachers to experiment with new instructional techniques (Khanal et al., 2021) and the crisis leadership and management skills of school principals (Grooms & Childs, 2021; McLeod & Dulsky, 2021; Stone-Johnson, 2021).

Notably, because districts could not anticipate the pandemic and lacked access to prescribed solutions or tools, some scholars have argued that districts' existing organizational resources were likely critical to ensuring students' continued learning (De Voto & Superfine, 2023; Jabbar et al., 2023). This perspective de-emphasizes the importance of planned protocols (such as emergency school closure plans) and, rather than focusing on a single dimension of organizational capacity, focuses on the overall local capacities of districts. In comparing the response strategies of two districts in Illinois, De Voto and Superfine (2023) call attention to the differential access to resources between districts in the form of technology capacity (e.g., digital devices, education technology coaches), instructional materials and supports (e.g., curriculum support staff, pacing guides), physical classroom space, and collaborative networks among leaders and staff. Inequities in existing resources means that resource-poor districts were more challenged to support student learning relative to resource-rich districts in the state.

In this study, we focus on the interplay between crisis leadership and existing organizational resources as salient local conditions for enabling student learning in

crisis. Focusing on districts that demonstrated better-than-predicted test scores in the 2020-21 school year, we identify promising strategies for crisis response that can inform future crisis preparation, as well as existing organizational resources that enable these response strategies. Because our district cases adopted different instructional modalities that served racially, linguistically, and socioeconomically diverse students, our findings are transferable to multiple contexts.

CONCEPTUAL FRAMEWORK

Our inquiry draws on concepts from crisis management and leadership as well as organizational theory. Foregrounding the role of crisis leadership as part of the existing organizational capacity of districts and schools, we first focus on the competencies and strategies that local leaders needed for navigating the pandemic. We next draw on organizational theory to examine how leaders may strategically leverage other existing organizational resources to continue students' engagement in learning amidst crisis.

The Role of Leaders in Navigating Crisis

Crises are urgent situations that require decisive action from organizational leaders (Smith & Riley 2012). Crises can be sudden, meaning that they occur unexpectedly and have a locus of control that exists beyond the control of organizational leadership (Grissom & Condon, 2021). Alternatively, crises can be smoldering; defined as small problems that build up within an organization due to managerial mismanagement or inattention (James & Wooten, 2005).

Scholars have described how organizational leaders respond to crises across distinct phases including crisis mitigation and prevention, preparation, response, recovery, and learning (Grissom & Condon, 2021; James & Wooten, 2005). Because the COVID-19 pandemic was a sudden crisis that had never been experienced before, districts and schools could not anticipate the crisis and had done little in terms of mitigation, prevention or preparation (DeMatthews et al., 2021; Grissom & Condon, 2021; Stone-Johnson & Weiner, 2020). For this reason, we situate our study in the phase of crisis response. Crisis response involves gathering data from varied stakeholders, making sense of incomplete or piecemeal information, making swift decisions that consider both short and long-term consequences, and building trust among stakeholders (Grissom & Condon, 2021; Potter et al., 2021; Thornton, 2021). Given pervasive uncertainty, necessary leadership skills for crisis response include sensemaking of imperfect information, being flexible and adaptive, communicating with stakeholders, building relationships, cultivating trust, and centering decision-making around the organization's core mission (Grissom & Condon, 2021; Potter et al., 2021; McLeod & Dulsky, 2021; Thornton, 2021).

Another critical but less studied leadership skill for crisis response is being attune to organizational capacity. The overall capacity of an organization dictates what is possible for crisis response (Pearson & Clair, 1998). When organizations lack certain resources, leaders may not act appropriately despite knowing what needs to be done (McLaughlin, 1987). Some scholars have argued that crisis leaders demonstrate their knowledge of an organization's history, culture, and capacity through their decision-making (Bhaduri, 2019). In the case of the COVID-19 pandemic, awareness of organizational capacity was arguably a crucial asset for local leaders since districts could not prepare ahead of time (De Voto & Superfine, 2023).

Organizational Theory on Strategic Resource Use

We draw on organizational theory to focus on the interplay between leadership and existing resources during crisis response. Organizational theorists define resources as existing stocks of human, physical, financial, reputational, social, and/or organizational capacity (Montgomery, 1995). In taking this view, we explore local capacity for navigating the pandemic beyond leader skills and competencies to include other essential inputs such as existing curricula and instructional programs that support coherent instruction, relationships between schools and families, the professional capacity and relationships among school staff, and aspects of school climate such as relationships between staff and students (Bryk, 2010; Bryk et al., 2010).

While existing organizational resources can constrain crisis response, they can be a source of strength. Indeed, organizational theorists who adopt an open systems perspective of organizations, focusing on the interaction between organizations and their external environment, argue that existing resources can be advantageous when aligned to external demands, when there is internal capacity to shift or adapt to external circumstances, or when resources can serve as a buffer to external pressure (Scott, 2003; March, 1991).

Kraatz and Zajac (2001) outline four perspectives on how crisis leaders strategically use existing organizational resources in crisis response. These include: (1) *resources as barriers to learning*, characterized by organizational resources deterring or misdirecting search behaviors of the organization necessary to adapt to changing external conditions; (2) *resources as environmental buffers* that decouple organizations from their external environment and desensitize decision-makers from responding to external trends; (3) *resources as commitments* that perpetuate existing, distinctive organizational strategies that have shown success in the past and are valued ends in and of themselves; and (4) *resources as facilitators* where existing productive resources that are underutilized can be further exploited for adaptation, innovation and change to the benefit of organizational performance.

The efficacy of the above approaches vary depending on the extent to which organizational resources are considered strengths (versus limitations), and the extent

to which organizations need to align with external pressures in their environment. For example, in response to high infection rates of COVID-19 in the local community (i.e., a severe environmental threat), districts may be forced to shutter schools and find that they are lacking in instructional routines or procedures to engage students in remote learning (i.e., an organizational limitation). At the same time, districts might possess staff expertise and collaborative networks that can be further exploited to build out new ways of teaching and learning (i.e., a resources as facilitators approach). In another scenario, COVID-19 infection rates may be very low and less threatening to existing school operations. District leaders may choose to persist with traditional, in-person educational practices that have contributed to student success in the past (i.e., a resources as commitments approach) and/or engage in resource-based strategies that buffer schools from pandemic pressures (e.g., misrepresenting data on local COVID infection rates).

To summarize, our conceptual framework suggests that local leaders may have pursued different crisis response strategies to the pandemic given variation in local context and organizational resources. Understanding these differences in crisis response is important given wide variation in student achievement in the pandemic across local communities. We apply our conceptual framework to compare the strategic use of organizational resources across five districts in Michigan that delivered better-than-predicted student achievement gains in the 2020-21 school year and adopted different instructional modalities.

DATA & METHODS

We use a multiple case study design to examine districts' approaches for supporting student learning during the pandemic. Aligning with best practices for case study research, we focus closely on the relationship between the phenomena of interest (in this case, how local leaders used resources in response to crisis) as it unfolded in context (Yin, 2003, 2014). Further, we rely upon triangulation from various sources (e.g. interviews across the district and school levels) with the goal of pushing the boundaries of existing theories (Creswell & Poth, 2016).

Study Context and Case Selection

Data for this inquiry stem from a broader project examining state and local leaders' responses to the COVID-19 pandemic. Our state-level analysis revealed that while state education leaders played a critical role in driving initial pandemic response and promoting capacity building for districts and schools, their authority was also limited given Michigan's history of strong local control (Hashim & Weddle, 2022). Further, strained resources at the state level and political complexities resulted in increased flexibility for district leaders to make decisions about instructional modality and learning during the 2020-21 school year. To better understand how local-level leaders

used organizational resources throughout navigating the COVID-19 crisis, we selected five districts for participation in this case study.

To begin district case selection, we first identified districts that performed better than would have been predicted in terms of achievement growth on benchmark assessments during the 2020-21 school year. We identified three unique district populations for sampling based on the instructional modality each district offered students for the majority of the 2020-21 school year: in-person, hybrid, or remote. Because districts could and did offer multiple instructional modality options during the 2020-21 school year, the aforementioned groupings were defined based on the instructional modality offered to students for the majority of the school year. We observed districts' instructional modality from monthly Extended Covid Learning (ECOL) plans submitted to the Michigan Department of Education throughout the 2020-21 school year.

For each district population, we ran ordinary least squares regressions to predict standardized reading and math benchmark assessment scores for each district in the Spring 2021 as a function of Fall 2020 benchmark scores, spring 2019 M-STEP scores (the state's last summative assessment results prior to the pandemic), and binary indicators for both grade level and the benchmark assessment that each district administered. We controlled for urbanicity and student demographics such as race/ethnicity, socioeconomic status, and eligibility for English language and special education services. We used these models to predict district test score performance in Spring 2021 which we then compared to each district's actual test score performance in the same semester.

We identified outperforming districts as those demonstrating the largest positive difference between actual and predicted test scores. We limited sampling to districts that used the two most common benchmark assessment providers in Michigan (NWEA MAP Growth and Curriculum Associates i_Ready) and enrolled 100 or more students (to eliminate noisy estimates from the sampling process). We confirmed that districts demonstrating better-than-predicted results in reading and/or math based on overall test scores demonstrated similar results for sub-populations such as students in grades K-3, English learners, economically disadvantaged students, and students with disabilities. We then sampled five districts across instructional modalities that varied in terms of student demographics, location, and district type.

Description of District Cases

While we sampled districts for variation in instructional modality, our district cases offered students access to multiple instructional modalities. All of our in-person and hybrid case districts offered a fully remote option to students and, in one in-person district, students were allowed to switch between modalities at any time during the school year. Our in-person case districts also had periods of remote instruction for all or subsets of students when COVID-19 case numbers were high. Given this fluidity, we

draw on evidence across district cases when making claims about instructional modality where possible.

Table 1 summarizes our district cases and shows substantial variation in local context. Note that we report general instead of specific descriptors (e.g., levels of student demographics instead of percentage values) to protect the confidentiality of district cases. Our in-person district cases differ in terms of the racial/ethnic background of their student populations. District A is a large district with a majority non-white and economically disadvantaged population. By contrast, District B is smaller in size and enrolls predominantly white students and a relatively lower share of students who are from economically disadvantaged families. We see similar variation across our hybrid districts. District C enrolls a predominantly white and rural student population. District D is relatively larger in size with a sizable population of English learners and students who are economically disadvantaged. District E, our remote district case, is a charter network in a large city with almost all non-white and economically disadvantaged students.

[Table 1]

Table 1 also demonstrates variation in test score performance across instructional modalities (with in-person districts being the highest performing). District cases outperform predicted test scores in reading or math by 0.16 standard deviation units or more. While the in-person district cases outperform predictions in both subjects (0.12-0.16 and 0.42-0.54 standard deviations in reading and math, respectively), the hybrid and remote cases each exceed predicted performance in one subject (math for District C and reading for Districts D and E).

District resources as measured in terms of per-pupil expenditures on instruction and average years of teacher experience are not evenly distributed across districts. Districts offering in-person and hybrid modalities are better resourced in terms of per-pupil expenditures on instruction and average teacher experience than our fully remote district case. However, none of our district cases are consistently in the highest tertile of the state for these conventional measures. These trends suggest districts may have relied on other organizational capacities for responding to crises, corroborating our approach of identifying districts' organizational limitations and strengths through a qualitative and inductive analysis.

Data Collection

We interviewed 46 district, school, and teacher leaders across the five selected districts in the Spring of 2022. Interviews were conducted via Zoom and lasted approximately 60 to 90 minutes. Table 2 summarizes information about interview participants for each district site. Participants included district superintendents and directors, school administrators, and in some cases, teacher leaders. At the district level, we recruited interview participants from senior leadership (superintendents, assistant superintendents) as well as those overseeing departments relevant to COVID

response such as English language development, special education, instructional technology, curriculum, and elementary and secondary education. School leaders included both school principals and assistant principals, whereas teacher leaders included teachers' union representatives and those identified by district leadership as contributing to COVID-19 response efforts. Because Districts C and E were the smallest in size across our district cases and had fewer leadership positions in the district central office, we conducted more interviews at the school-level to capture leadership perspectives in these districts.

[Table 2]

Interview questions focused on leaders' efforts to support staff, students and families while navigating the COVID-19 pandemic, opportunities to collaborate with other stakeholders in pursuit of shared goals, and each district's instructional modality and shifts in modalities offered over time. In addition, we asked about approaches for providing student access to learning opportunities, supporting student engagement in learning, supporting the needs of special student populations, communicating with families, attending to social-emotional learning, and providing other support and resources for teaching and learning (as defined by interview participants). For each of these approaches, we asked participants to reflect on specific strategies that worked well, those that did not, and any perceived barriers and challenges. These questions helped us to determine how leaders used a variety of resources to respond to the pandemic.

Analysis

We transcribed and coded the interviews based on broad conceptual categories as identified in our interview protocol. We met as a research team to build out the codebook in close alignment with our interview protocol prior to coding the data. We then met weekly to review coding and identify inductive codes that emerged from our initial reading of the data. For example, we observed that staff burnout was a prominent theme discussed by local leaders and agreed to code for this theme throughout analysis.

After coding the interview data, we documented emerging themes in case memos for each district case. These memos elaborated on the local context of each district case; how districts came to adopt and subsequently designed their instructional modality for the 2020-21 school year; strategies, resources, and practices for supporting student learning; and challenges in implementation, including any limits to existing organizational capacity. We included supporting excerpts for each theme to establish a chain of evidence.

Drawing on these district case memos, we next wrote a cross-case memo to explain how local leaders used existing organizational resources as part of pandemic response. This stage of analysis drew closely on concepts from our conceptual framework. We first attended to demands, pressures, or threats that the pandemic placed on districts and schools. We then identified strategies and resources for

responding to these external conditions in alignment with the four perspectives outlined by Kraatz and Zajac (2001): (1) resources as barriers to learning, (2) resources as environmental buffers, (3) resources as commitments, and (4) resources as facilitators. Notably, we did not find evidence of the first two approaches, but identified several themes related to prioritizing resources that were already in place prior to the pandemic (indicating a resources as commitments approach) and leveraging existing resources to adapt and develop new ways of teaching and learning (indicating a resources as facilitators approach). Where relevant, we documented limitations to existing organizational capacity and unintended outcomes of crisis response. We also documented the extent to which approaches were shared across instructional modalities. This memo developed the assertions presented below.

FINDINGS

Figure 1 provides an overview of our main findings. Local leaders engaged in both resources as commitments and resources as facilitators approaches in response to external pressures from the pandemic and the extent to which these pressures aligned with existing organizational resources. Consistent with a resource as commitments approach, leaders continued to prioritize staff-student relationships, school-family relationships, and existing curricula and instructional models that they perceived as being appropriately aligned with the foundational needs of educators, students, and families stemming from the pandemic. Leaders also perceived these resources as contributing to student learning prior to the pandemic and offering a reliable path forward amidst ongoing uncertainty and disruption.

[Figure 1]

While we observed similar resources as commitment approaches across cases, districts differed in their use of resources as facilitators for change by instructional modality. In these situations, districts' existing organizational capacity was not aligned to the needs in their environment, prompting leaders to search for underutilized capacity that could be leveraged to build out new ways of teaching and learning. Leaders relied on staff expertise, staff collaboration, and school-family relationships to: 1) ensure the safety of educators and students while learning in-person; 2) keep students engaged in learning in remote and hybrid environments; and 3) personalize academic support for remote and hybrid students.

As shown in Figure 1, districts' resource-driven approaches facilitated conditions that aligned the work of schools with demands in their external environment and in so doing, productively engaged students, educators and families in teaching and learning. These strategies, in turn, likely contributed to better-than-predicted student achievement trends during the 2020-21 school year but also contributed to high-levels of leader and educator burnout. We elaborate on these findings by first describing the

common crisis leadership approach shared across districts and subsequently their resource-driven strategies used to support student learning.

Responsive Crisis Leadership Coming into the Pandemic

Beginning in summer 2020, the Michigan state legislature passed a bipartisan “Return to Learn” package of bills that gave Michigan school districts substantial local discretion to determine their instructional modality for the 2020-21 school year. Amidst heightened local control and ongoing uncertainty, local leaders in our district cases acted as responsive crisis leaders to understand stakeholder preferences and build consensus and trust in district policies. Leaders’ responsiveness to stakeholder needs was largely consistent with how they engaged students, families and educators prior to the crisis. In other words, responsive crisis leadership was a general strength of our district cases.

Local leaders maintained a student-centric mission when making decisions in the pandemic, demonstrated care and empathy for students, educators and families, and maintained relationships and trust with stakeholders both inside and outside of schools. A teacher from a hybrid district shared how their superintendent was integral to building relationships between school and communities and between administrators and teachers which, in turn, drove how their school responded to the COVID-19 pandemic. They shared, *“The way our school handled this pandemic, I thank God every day that I was under our current superintendent.”* An administrator in another district shared that they worked most of their career in the same district because of the student-centric mindset of previous and current superintendents:

The reason why I have always stuck around in [District] is because I believe the leaders have always had the right mindset [which is] students first. I think our superintendent truly embodies that. [...] [They are] great to work for, very understanding, [an] empathetic individual who fights for students’ rights. Who wouldn’t want to be part of that, right?

Information searching was another common practice across local leaders. We interpret this behavior as indicative of two trends. First, the external pressures generated by the pandemic across local communities were intense and salient such that leaders could not ignore them. Second, leaders actively used organizational resources to gather information about the pandemic rather than use resources as barriers to learning or to buffer schools from the pandemic.

Across all cases, local leaders employed multiple information search strategies to learn from a wide range of stakeholders affected by the pandemic, including surveys, town halls, school board meetings, COVID metric reports, staffing internal committees, and meetings with stakeholder groups such as the teachers’ union. They engaged internal and external stakeholders throughout the school year—from students, parents, community partners, school staff, board members, state and local health

officials, to the CDC—to assess the severity of the pandemic and stakeholder preferences. This information searching defined leaders' priorities and rallied distinct groups around a common cause or course of action. Leaders' persistent outreach to internal and external stakeholders also helped them “get a pulse” of shifting community preferences in an evolving crisis.

A teacher from a hybrid school district explained that they “did a lot of surveys” of parents, students, and teachers and at times engaged in “really difficult discussions [that were]...polarizing” but that these efforts ultimately brought “people together and do what we thought was best for all students.” The superintendent from an in-person district shared that hearing the challenges and complaints of low-income parents in school board meetings who desperately needed to get back to work led them to prioritize “get[ting] schools back in person.” A central office administrator from a remote district shared that rising COVID infection rates in fall of 2020, along with no vaccines, left their school community feeling especially vulnerable to COVID exposure. These circumstances led the district to offer remote instruction in accordance with “everyone’s comfort level” and to reassess shifts in instructional modality through stakeholder surveys throughout the year.

Besides responsive crisis leadership, our district cases benefited from other existing organizational resources that informed how leaders responded to pandemic challenges. In fact, a rather striking finding from our analysis was leaders' emphasis on utilizing the resources available within their organizations rather than relying on external resources. This is not to say that leaders did not use resources shared by federal and state governments or other external actors such as COVID relief funding, access to technology and Internet connectivity, health guidelines, and roadmaps for school reopenings. Rather, translating these external inputs into action required further use of existing organizational capacities. Below, we elaborate on how leaders used existing resources to respond to the pandemic depending on perceived external demands (or threats) and perceived strengths and/or available capacity of existing resources.

Resource as Commitments to Address Foundational Needs

Consistent with a resource as commitments approach to organizational crises, leaders continued to prioritize and/or invest in existing resources that had contributed to student learning prior to the pandemic and offered a reliable path for navigating current pandemic challenges. In particular, leaders relied on 1) existing staff-student relationships to respond to student trauma stemming from the pandemic; 2) existing school-family relationships to support family needs and maintain trust with the local community; and 3) existing curricula and instructional resources to support engagement in student learning.

These resources as commitment strategies were justified based on leaders' perceptions of their external environment and the alignment of existing

organizational resources to stakeholder needs. Leaders perceived students' emotional trauma, family hardships, and the disruption to student learning routines in Spring 2020 as foundation needs or gaps that needed to be targeted first so that learning could take place. They also perceived the need to cultivate trust with the local community in order to motivate school staff who were themselves struggling from personal challenges related to the pandemic. At the same time, leaders had access to existing organizational resources in terms of staff-student relationships, school-family relationships, and existing curricula and instructional resources that could support the needs of staff, students, and families. As such, leaders perceived the continued use of or further investment in these resources as valuable outcomes of pandemic response in and of themselves.

Prioritizing Staff-Student Relationships to Respond to Student Trauma

Leaders prioritized existing staff-student relationships to provide students with social and emotional support in response to trauma stemming from the pandemic and its isolation. Staff-to-student relationships were valued in and of themselves, as they signaled that schools were providing a safe space for students to reckon with their feelings; a critical first step for enabling academic learning. The superintendent of an in-person district identified student wellness as her *"top priority...because, if you do not have that component and Maslow's hierarchy, you need to meet the basic needs before we can do any of the academics here."* They went on to explain that *"school closures, COVID, isolation [were] traumatic for all of us"* as such, it was important to make students feel safe and ensure that *"they have what they need."* A teacher in a remote district shared that many of her students had lost family members during the pandemic and that her *"biggest thing really started with supporting [students] emotionally...the first step was really just trying to help the students recover from the pandemic."*

Moreover, in all district cases, participants identified caring staff-student relationships as a distinct resource that districts had cultivated well in advance of the pandemic and had previously contributed to student learning. Maintaining caring staff-student relationships was therefore not only a necessary strategy for responding to foundational student needs in the pandemic, but also central to the beliefs and practice of school staff and part of schools' prior track-record of academic success. As one school principal in a hybrid district explained:

I am a huge believer in relationships. I talk to my teachers about that every year. I am like you build these relationships; kids are willing to do extra for that...That is what we try to do...to let the kids know that we care about them, we want them here, and then, when they were not here, we are saying, 'Where were you? We missed you. What is going on?'

Similarly, the special education director in an in-person district shared that their staff were "very good" primarily because of their close relationship with students. Another high school principal in the same district shared that they could not think of a specific

approach that contributed to student learning aside from the fact that teachers and students shared close ties coming into the pandemic. The director for English language development in another in-person district shared that *“the best thing about [their district] are the people who work in their system,”* going on to share that the district was recognized nationally and locally for educating multilingual students. Reflecting on how her team stayed connected to multilingual learner students throughout the pandemic, they shared: *“Our staff really made the difference there by going the extra mile...A lot of the success of that, I think, is attributed to the fact that we had strong relationships with students and families before the pandemic.”*

Investing in School-Family Relationships to Respond to Family Needs and Build Trust

Leaders also invested in existing school-family relationships to respond to the devastating effects of the pandemic on students’ families. These relationships provided access to information about families’ unique needs that districts could then address to stabilize students’ home environments; a necessary condition for enabling student learning. Because districts had maintained close connections to families prior to the pandemic, engaging in these relationships was a trusted approach for learning about family needs and responding to pandemic challenges. Investing in school-family relationships further benefited districts by establishing a sense of trust with the surrounding community that, in turn, motivated school staff to continue efforts to educate students despite facing challenges of their own.

Districts shared multiple examples of how school-family relationships allowed them to identify and support family needs, from the mental health needs of parents to the food, housing, technology, and socioeconomic insecurity of families. The superintendent of a hybrid district shared that, even prior to the pandemic, special education staff worked with families to develop parenting skills appropriate for the needs of students with disabilities. Expanding this existing approach made sense since parent anxiety and needs for support became more acute once the pandemic hit. As they explained, *“a big part of that was the parenting skills to help the parents through this too...it is always a part of what we do, but even more so with the pandemic now.”*

In another hybrid district, an administrator shared how *all* district staff – from administrators to teachers to bus divers – carried out home visits to provide families with resources. Conducting home visits provided direct access to families and further strengthened the relationship between the district, its schools, and families. Because district and school staff had cultivated relationships with families in previous years, families could be open about their needs for support, allowing districts and schools to proactively respond to these needs. As they put it, *“it was more helpful that our staff went out to the homes [of students] because we had those connections with the students and families.”*

Investing in school-family relationships was mutually beneficial, as school staff perceived these ties as fostering trust with the local community and further motivating their efforts to educate students. One district administrator in a hybrid district shared:

We have had challenges, but there were some...successes too. [The pandemic] strengthened a lot of relationships with families too. Parents even saying things to me like, 'I learned with my son. I was watching the teacher.' ...To hear parents say that is huge. As challenging as it was, some good came of it.

Similarly, a school principal in an in-person district highlighted that trust with staff and families was necessary for him and his staff to get through challenging times, thus making close school-family ties a valuable asset to be cultivated even “during the best of times”.

One thing it affirmed for me is that you put in effort on the front side when things are going well to build relationships and relational capacity with staff and families, so when the stuff hits the fan, they will be with you.

Relatedly, a high school counselor in a remote district shared how the pandemic made clear that close school-family ties were essential to the identity and survival of their school community, signaling that these ties gave a sense of purpose to their work as an educator immersed in crisis. As they put it:

It really showed me, again from top to bottom, how we care about each other and how that goes so much further than any mandate, any pandemic. We survived a pandemic because we became a family, and our kids succeeded because we became family.

Using Existing Curricula and Instructional Models to Support Engaged Learning Amidst Uncertainty and Disruption

Leaders in all districts described Spring 2020 when schools were physically closed as disrupting student learning in ways that needed to be quickly remedied. In reflecting on what separated their district from others in the state, one superintendent shared that “it was a continuous curriculum. I did not stop the learning.” Another superintendent shared that providing continual access to in-person learning opportunities and social resources was imperative for ensuring equity for students. As they put it, “As an equity play, as a social-justice decision, we need[ed] to open our schools.”

To continue student learning amidst ongoing disruption, all districts relied on curricula maps, pacing guides, and/or instructional models that they had developed in advance of the pandemic. Local leaders shared that these resources contributed to students' academic success in the past and would continue to do so even during a pandemic. A school principal in a district offering both in-person and remote instruction explained that the district relied on its existing curriculum and instructional model to continue

teaching and learning in both modalities. As they put it, “we just tried to...keep doing what we have been doing because we did feel like our academic success was there prior to the pandemic, so we did not want to veer off course.” They elaborated on how school staff translated their in-person instructional model into an online program.

Another thing we felt strongly about is we have an instructional model in place, like how we teach every single subject—every single lesson, and we were trying to think how we could take that instructional model and implement it remotely. [The model] was our focus lesson, collaboration with students, and then independent learning with students with teacher support weaved in there. Those are the components that we would have if we were in the classroom.

Similarly, leaders in our remote and hybrid district cases dedicated extensive time and resources prior to the pandemic toward developing curriculum maps and intervention-based approaches to instruction in collaboration with teaching staff. These resources and strategies embodied the expertise of educators on what students needed to learn to succeed academically and as such, continued to support student learning during the pandemic. In our remote district case, educators continued an existing practice of scheduling an hour of intervention-based instruction to support student learning in reading and math. As one school leader explained, “One thing that I believe our school has always done well—at least for the past four to five years that I have been here—we have intervention built into our schedule.” By continuing this structure during remote instruction, leaders leveraged an existing and distinctive organizational strategy that was already ingrained in teacher practice and familiar to students.

In hybrid districts, leaders leveraged curriculum maps to identify essential standards to focus instruction for the limited number of days when students attended school in-person. One leader had worked with teachers across subject areas and grade-levels over a “three year-span” prior to the pandemic to identify essential standards that are vertically aligned from elementary to middle and high school. As they explained:

We really broke down what it means with the standards, what the essential criteria would look like for students to demonstrate mastery. We put any necessary rubrics in there for what it would look like if you were evaluating it, so that you knew that the students got it.

These criteria and rubrics embodied the collective knowledge of teachers and served as the foundation for the district’s hybrid instructional model. As the same director shared:

We do not know how the rest of the year is going to pan out [but] if we focus on those critical, essential standards, and we really spend time making sure that the kids know them very well, we are going to get them to the next point when we are back.

Consistent with a resource as commitments approach, we observed local leaders persisting with existing organizational resources that they perceived as addressing foundational needs stemming from the pandemic and that were effective at supporting student learning prior to the pandemic. Yet persisting with existing organizational resources was not always sufficient in response to severe environmental threats. As we describe below, districts engaged in a resources as facilitators approach in which existing resources supported adaptation and change.

Resources as Facilitators of New Ways of Teaching and Learning

Unlike the previous examples of a resources as commitments approach where districts' existing organizational resources were well aligned to address the needs of the pandemic, there were instances in our data when districts' existing resources were not aligned to their external environment. In response to limits in organizational capacity, leaders searched for other existing resources that could be further exploited to support adaptation and change.

The use of existing resources as facilitators for change varied across instructional modalities in response to different pressures or demands in local context. In-person and hybrid districts leveraged collaboration among leadership and staff to develop safety protocols that would keep educators and students safe while meeting families' intensifying demands for in-person learning. Remote and hybrid districts leveraged staff collaboration and school-family relationships to develop new instructional processes to keep students engaged in learning while responding to parent and educator continued concerns of high local infection rates. They also used staff collaboration to individualize academic support for students with varied needs.

Collaboration Among Leadership and Staff to Develop Safety Protocols For In-Person Instruction

Districts facing external demand from parents to offer in-person instruction had the challenging task of designing in-person or hybrid instructional modalities that could keep students in the classroom while also attending to safety concerns of parents and staff. Reflecting on parent demands for in-person instruction in their district, one superintendent empathized with parents wanting to *"make sure their kids had opportunities to be with their friends. The social aspect was huge. Having connections to their teachers was also huge."* Speaking to the overwhelming demand for in-person instruction in their community, the superintendent of a hybrid district shared, *"I had 90 percent of the parents who wanted to be face-to-face, they were not afraid to be [in-person]. ...Hybrid is the only thing I could do to keep [infections] mitigated."*

As the above quote suggests, leaders in in-person and hybrid districts had to balance demand for in-person instruction with the availability of physical classroom space to adhere to social distancing and other health guidelines. Educator concerns for safety

and health and hesitations about returning to in-person instruction was another factor that constrained district capacity for in-person instruction. Balancing capacity with parent expectations was easier for some districts to do than others. One of our in-person district cases was located in a rural area and served a smaller sized student population and was therefore able to offer in-person instruction for all students who opted for this modality. In our other in-person district, leaders described a nearly fifty-fifty split in parent and educator preferences for in-person and remote instruction as making it feasible to offer in-person instruction families. For hybrid districts, physical space and educator concerns were a bigger constraint in the presence of overwhelming parental demand for in-person schooling, making a full return to in-person instruction untenable.

While leaders could not suddenly create more physical space, they could address safety concerns by leveraging collaboration among leadership and staff to design new safety protocols for mitigating COVID-19 spread within school buildings. In one district, this meant problem-solving between district administrators and building leaders about protocols and procedures to be developed in each school building to ensure student and staff safety and that each school had appropriate support. As one administrator shared:

We would get together and come up with this large picture, and...then we all sit down and figure out together what is district-wide and what is building-specific in implementing these changes or policies, procedures, whatever it might be.

A school principal in another in-person district shared that “the first step, a big step” was developing safety protocols so that staff and families felt safe to come in. They went on to share that the school relied on teachers to be flexible in their practice and accept additional responsibilities such as regularly cleaning classrooms. As they explained:

Every desk [needed to be] sprayed and wiped down, for example, in between classes. Every classroom had hand sanitizer bolted to the wall...[we provided] cleaning materials to teachers and shared with them how they needed to become cleaners now.

Engaging internal collaborative networks helped teachers buy into district efforts to appease parent demands for in-person instruction. Through collaboration with leadership, staff could have input on the design of the modality and received assurance that their concerns for safety were heard. The school principal in a hybrid district shared how they worked with their school improvement team to develop a hybrid instructional plan “that everyone could buy into.” They noted that this collaborative approach helped the school avoid union issues, with teachers in his schools instead “putting aside [grievances] for what was best for the kids.” Similarly, a teacher in the same district shared how much she appreciated being able to openly share concerns of teachers with senior leadership as the district was designing its

hybrid modality. She explained, *"I am appreciative for having the opportunity and [for being] given that freedom by my building administrator...It was a very difficult time but I value that experience."*

Staff Collaboration and School-Family Relationships Supported Engaged Student Learning in Remote and Hybrid Modalities

Whereas in-person and hybrid districts had to adapt to create new in-person learning environments that were safe for students and staff, remote and hybrid districts had to adapt to create new instructional routines and procedures that could keep students engaged in learning while at home. In these districts, there was notable demand from local health authorities, parents, and staff to mitigate COVID spread by engaging in remote instruction. Yet local leaders also faced pressure from within and outside of their school systems to engage students in learning. In a remote district, leaders framed this pressure in terms of preserving student enrollment, which was at risk of declining if parents were unsatisfied with the quality of instruction or because students might completely disengage from the educational system and *"be lost."* In a hybrid district, a superintendent described board meetings where parents expressed frustration about student learning suffering at the expense of schools adhering to health mandates.

While local leaders overwhelmingly felt the pressure to engage students in learning, their school systems did not have the existing capacity to support engaged learning in a remote or hybrid environment. Commenting on the limited knowledge of teachers to use technology in general, one district administrator shared:

Jumping on a Zoom call for, I would say 60 percent of the people was a foreign...we had a lot of challenges on getting equipment, simple stuff like document cameras, so they could do Zoom from their desktop, extra laptops to push out.

In our remote district case, an administrator shared that not only was remote instruction new to teachers, but that students (especially early-grade learners) and parents lacked the skills, time, and resources to support engaged learning at home.

While remote and hybrid districts did not have the initial capacity to support engaged learning, local leaders pivoted and leveraged existing resources to meet this new demand. Notable instructional changes that remote and hybrid districts pursued included re-designing school schedules to give students regular breaks from screen time, offering a balance of synchronous and asynchronous instruction, and allowing teachers and specialists to work with students in small group settings or meet with students one-on-one. One school administrator shared how their school principal was *"a genius"* for developing a schedule with a cohesive mix of social experiences, synchronous instruction, asynchronous instruction or independent work time, as well as an extended lunch break so that students could have *"breathing room"* between classes. In another district that offered both in-person and remote instruction, leaders

developed a master schedule for its remote program where students would meet as a whole class but then break out into small groups for *“productive group work or collaborative time,”* allowing teachers to *“engage with four or five kids at a time.”* The district also shortened the regular school day by an hour so that teachers could meet one-on-one with remote students and have dedicated time to plan and prepare for instruction.

Undergirding these new instructional approaches was staff expertise and collaboration to build out new learning experiences for students. The school principal in a district with a remote option for students shared how the collective talent among staff drove changes to instruction. As they put it, *“We used the talent that we had within the district to create some of those pieces to help our remote students. There was a lot of collaboration time just among teachers that were remote to share different ideas, different platforms.”* A kindergarten teacher in a remote district *“appreciated being on [a] committee to share [their] perspective”* with other early grade-level teachers to modify the school’s instructional schedule to meet the needs of their young students. Having time to plan with other teachers *“was helpful because virtual teaching in kindergarten through second grade is very different than virtual teaching in any other grade level.”* In a hybrid district, a special education director shared that having scheduled planning time on virtual days was *“a gift”* that allowed her staff to work closely with classroom teachers on learning accommodations and differentiating instruction.

School-family relationships were also used to provide guidance, support, and routines to support student learning at home. Across cases, educators were available beyond the typical school day to answer questions from parents, help students to complete assignments, and keep students focused on learning tasks. Educators described extensive communication with families about each week’s instructional plan and schedule, as well as directions for assignments. One high school teacher in a hybrid district noted, *“There were lots of questions. That is why I felt the need to communicate every single week. [...] I invited parents to join my Google Classroom so they had access to the platform that I was using.”* Similarly, a teacher in a remote district described communicating weekly with parents to set expectations for student learning. They described sharing a *“Peek of the Week”* with a list of Zoom links and assignments for each day and followed up with reminders and emails for parents to submit assignments.

Ongoing and detailed communication was necessary to engage parents as partners in supporting student learning at home. Parents in turn were largely responsive to the guidance and materials shared with them. A teacher in the same hybrid district shared, *“We have a pretty supportive community, pretty involved parents. I did not have any trouble getting [assigned] work back, none at all. They just brought it back.”* Similarly, a school principal in a remote district shared that having a strong *“rapport with parents”* allowed them to understand their expectations for teaching and learning and work completion at home.

Collaboration Between Content Teachers and Specialized Staff to Individualize Academic Support

The pandemic vastly expanded the range of student need for academic support, requiring school staff to individualize approaches for each student. Student needs varied based on their instructional modality (e.g., remote versus in-person), school level (i.e., elementary, middle, or high school students), existing academic needs (e.g., students that were not on track for completing high school), presence or absence of resources at home to support student learning, and the social, economic, and health concerns of families. The need for differentiated support was arguably more pronounced in districts in which students were learning remotely. As one district administrator explained, *“teachers just had to get creative as to how they were going to engage their students at the different levels and what worked for them.”*

Beyond teacher expertise and effort, local leaders identified staff collaboration as an existing organizational resource that could be further leveraged to individualize instruction. In particular, leaders prioritized relationships between general educators and administrators, specialized staff (e.g., special education and English language development teachers), social workers, and school-family liaisons. One demonstrative example is the joint effort of classroom teachers and specialist staff to offer push-in tiered intervention-based supports for instruction. Several leaders described using tiered academic instruction to ensure students did not *“fall through the cracks”* amidst shifts in instructional modality and periods of remote instruction. Under this tiered model, teachers would focus on grade-level or *“tier 1”* instruction while specialist staff would provide additional *“tier 2”* or *“tier 3”* support for students who are not at grade-level or had other learning needs (e.g., multilingual learners, students with disabilities).

While a tiered approach to academic intervention is not a novel idea or practice, educators in our remote and hybrid districts observed that they provided more push-in interventions for tier 2 and 3 instruction than they ever had prior to the pandemic. Several participants in a remote district shared that it was easier for resource teachers such as special educators or speech therapists to do push-in interventions in general education classes since they did not have to spend time moving between classrooms or traveling between schools; they could simply *“click in”* to where they needed to be. One principal commented, *“I’ve never been able to have students [receive] that much intervention, ever.”* An English language director in another district that offered both in-person and remote instruction shared that resource teachers started directly supporting students in the virtual classroom. This leader shared, *“[Support staff] are now suddenly actually in those learning environments more than they were before.”* Following a hybrid schedule, another district dedicated its virtual days for special area teachers, instructional coaches, early childhood specialists, English language instructors, and other resource teachers to provide direct instruction and one-on-one support to elementary students.

Driving the increased provision of push-in supports were close working relationships between general education and specialist teachers. Leaders shared examples of teachers requesting outreach and support from social workers, counselors, English language development specialists, behavioral specialists, and special education teachers. Such connections often focused on re-engaging students who were absent or not participating in class. Leaders noted the importance of sharing responsibility for student learning across roles, as opposed to depending solely on core content teachers. Describing the benefits of engaging multiple staff in intervention approaches, a teacher in a hybrid district explained:

I never felt like I was doing it alone. I would have the support of my special education teacher. I would have the support of the school counselor. [...] Even our building principal was reaching out to parents. [...] I think that whole-group approach was really helpful.

In another hybrid district, an elementary principal shared working closely with the schools multi-tiered school support team to consider “*what co-teaching should look like in the hybrid model*” and noted that “*staff supporting special populations were part of their school’s strong professional learning community culture.*”

The Cost of Supporting Student Learning Amidst the Pandemic: Staff and Leader Burnout

Our analysis of how districts used resources to support student learning revealed the significant toll of the pandemic on leaders and educators. As teachers and leaders went above and beyond to support students and families, they experienced heightened stress and burnout. Regardless of instructional modality, leaders described the 2020-21 school year as taking a toll on themselves, their teachers, and their staff. The COVID-19 pandemic brought on overlapping stressors such as navigating health and safety concerns, learning new technology, supporting students and families through trauma, and transitioning back and forth between instructional modalities, all of which contributed to educators’ overload.

Several leaders described teachers as experiencing significant stress and anxiety from trying to support student learning during such a challenging year. One principal explained, “*[Teachers] really took it to heart when students were failing or weren’t showing up... It’s that kind of stuff that stresses them out and makes the burnout horrible.*” Similarly, a district leader described teachers as being under “*pressure*” to “*be available all the time*” during the 2020-21 school year. Reflecting on the toll the COVID-19 pandemic had on educators, a school leader summarized, “*They did an amazing job keeping afloat [but] they were tired. They were tired at the end of the year, for sure.*”

In addition to describing the strain of the COVID-19 pandemic on teachers, leaders also reflected on their own well-being. Describing the negative impact of navigating multiple stressors, one principal shared:

There were so many different layers. In my position, trying to make sure that we're giving the right attention to each layer was a juggling act, for sure.... My focus was supporting others, whether that be teachers, whether that be students [...] What didn't go well is my own level of social-emotional wellbeing. There just was no time for myself.

This quote is representative of a sentiment we heard across all districts; leaders were concerned about well-being. A school leader explained, *"We want to make sure everyone is taken care of. We want to make sure our students are good. We want to make sure our parents are good, but we have to make sure we are good as well."*

Leaders in remote and hybrid districts also described added workload for educators. While these leaders lauded the efforts of teachers to communicate with families about the logistics of instruction, they noted that this communication was time intensive. Some leaders also discussed the added burden for teachers who were responsible for teaching both in-person and remote students and shared that this contributed to teacher burnout. A school principal framed hybrid as *"tricky,"* indicating that *"it was challenging but we got it done."* Thus, while the districts included in this study effectively leveraged resources in familiar and new ways to support learning amidst crisis, these efforts came at the cost of educator and leader well-being.

DISCUSSION

Findings from this study provide an in-depth understanding of local education leaders' successes and challenges as they navigated the COVID-19 pandemic. Across cases, responsive crisis leadership and sustained information search facilitated response strategies which included a mix of both resources as commitments and facilitator approaches. Leaders used a resources as commitments approach by investing in existing organizational strengths such as staff-student relationships, school-family relationships, and existing curricula and instructional models to address foundational needs of educators, students, and families and provide a reliable path forward for continuing student learning. In cases where existing capacity was not aligned with external demands from the pandemic, leaders leveraged existing resources such as staff expertise, staff collaboration, and school-family relationships to adapt and change. Using resources as facilitators for change involved districts developing new safety protocols for in-person instruction and using technology in new ways to support student engagement in learning in a remote context and to individualize academic support.

While these resource-driven strategies likely contributed to better-than-expected student achievement trends in our district cases, we observed pervasive leader and

educator burnout across cases. This finding is perhaps not surprising given that crisis leadership, staff expertise, and staff relationships with students, families, and other staff were the primary resources that local leaders leveraged for crisis response. Considering that we observed acute teacher burnout in remote and hybrid districts, it is possible that the external pressures in these communities, combined with leaders' reliance on staff knowledge, collaboration, and relationships to build out new modalities, was especially tiresome.

Implications for Policy and Practice

In the context of an unprecedented disruption to education, our findings suggest that districts can engage in responsive crisis leadership and resource-driven strategies to support student learning. The fact that we observe consistent evidence of responsive leadership and resources as commitment strategies across districts situated in different local contexts suggest that these approaches may be broadly beneficial. For example, investing in school-family relationships to support family needs and cultivate trust between educators and the local community appears to be an appropriate crisis response strategy across contexts. In general, our findings on resources as commitment approaches to pandemic response align with existing evidence on the importance of school-family ties, student-staff relationships, and instructional guidance and coherence for school effectiveness (e.g., Bryk et al., 2010).

Yet we also observed differences in the use of resources as facilitators of change by instructional modality, suggesting that there may be distinct pressures in the local environment of districts that require leaders to use existing resources to adapt in different ways. While all district cases were pushed to adapt and change, remote and hybrid districts were arguably pushed to the greatest lengths, as they had to develop entirely new, technology-enabled structures, routines, and collaborative approaches to engage students in learning and personalize academic support. This suggests that flexibility and adaptation are necessary pandemic response strategies, especially in communities facing pervasive concerns for health and safety.

Yet adaptation comes with risk. There is no guarantee that the new safety protocols developed by in-person or hybrid districts were full-proof against COVID-19 spread, nor that the instructional approaches developed by remote and hybrid districts were comparable to or better than in-person instruction. Anecdotal accounts from our in-person district cases suggest that COVID-19 outbreaks did occur on campus and were traumatizing for school staff who had to suddenly pivot to remote instruction while suffering from illness. Our achievement data suggest that remote and hybrid districts did not perform as well as in-person districts, and we also observed greater educator burnout and stress in remote and hybrid districts.

Given the risks associated with organizational change in crisis, leaders may need to pursue a balanced set of resource-driven strategies. One way that our district cases

demonstrated balance is by adhering to reliable, resource as commitments strategies alongside undertaking change in other areas. In addition to balanced approaches to crisis responses, federal and state policymakers may need to provide additional resources, support, and flexibility to communities that are more exposed to crises and face greater pressure to adapt and change.

More importantly, our findings demonstrate that districts relied on existing organizational capacities to engage in the above-mentioned response strategies. These existing capacities are not readily quantifiable and observable in administrative data, nor do they necessarily correlate with conventional measures of district resources such as per-pupil spending or average years of teacher experience. To prepare for future crises, federal, state, and local governments need to invest holistically in district and school resources over time, and work to ensure that these resources are equitably distributed across communities.

First and foremost, districts benefited from access to curricula, pacing guides, instructional models, and intervention routines that they perceived as successful in supporting student learning prior to the pandemic and ingrained into the daily practice of educators. These existing materials and routines were the building blocks on which districts recreated a sense of normalcy and routine in student learning following disruptions to schooling in Spring 2020 and were largely seen as reliable inputs for ensuring students' academic success.

The promising approaches described in this paper also depend on robust leadership and a healthy school workforce. Across cases, responsive crisis leadership, relational resources, and dedicated school staff enabled a student and family-centric response to the COVID-19 pandemic. At the same time, participants shared that COVID-19 pandemic efforts took a significant toll on leaders' and educators' well-being. To help districts and schools develop a workforce that is prepared for future crises, policymakers should prioritize long-term investments in leader and educator pipelines. Such initiatives will require attending to leader and educator preparation, work conditions in schools, professional development, workload, and compensation. Given concerns of heightened stress and burnout, it is critical that policymakers solicit input from educators about sources of work stress and dissatisfaction and act to mitigate these concerns.

Across cases, leaders described school-based collaboration across roles as essential to promoting students' access to learning opportunities. Educators benefited from structures enabling collaboration, such as shared leadership approaches of district administrators and building leaders, dedicated time to plan instruction, and working with specialized staff to identify students in need of support. As such, leaders may consider how to best dedicate time, structures, and tools to support teacher input on school decision-making, collaborative planning, and students' access to instruction. To

inform these decisions, leaders may consider how virtual opportunities to communicate can be leveraged to support collaboration amidst recovery efforts.

The districts included in this study also had strong relationships with families coming into the pandemic. These relationships, in turn, afforded leaders a deep understanding of families' needs and provided a foundation for partnering with families to continue educating students amidst disruptions and transitions. Families were included in district leaders' decision-making about instructional modality, promoting parent and student support for these modalities. During and beyond pandemic recovery, it will be critical for leaders and staff to sustain relationships with families. In addition, policymakers should develop policies and processes that incentivize and facilitate school-family partnerships and joint decision-making.

Additionally, our remote and hybrid district cases demonstrated innovative approaches to using technology to promote students' access to learning opportunities. To ensure technology is used effectively during and beyond recovery efforts, additional resources may be needed to bolster infrastructure and capacity. State leaders and policymakers could expand access to the Internet and devices, as well as provide ongoing training and support for leaders and educators on using technology both in and beyond the classroom. Such training should attend not only to the effective use of technology for instruction and learning, but also to how technology can be used to deepen communication and partnership between schools and families.

Implications for Theory and Future Research

Findings from this study reveal promising bright spots for supporting student learning amidst unprecedented disruptions to education. We also offer novel insights on the interplay between crisis leadership and organizational capacity that has been understudied in the existing literature. While prior studies have largely considered organizational capacity as a constraint to leadership, we offer insights on how crisis leaders perceive organizational capacity in relation to their external environment in ways that position resources as assets, strengths, or as sources for adaptation and change.

While the perspectives shared across districts provide a deeper understanding of how organizational resources were leveraged during the COVID-19 crisis, additional research is needed to examine efforts to sustain successful approaches over time. Future qualitative research could explore the extent that districts and schools have been able to sustain innovative approaches to instruction, intervention, and collaboration, particularly amidst pervasive staffing shortages. It is also important to note that our study only included districts where students performed better than expected on the state assessment. It is possible that districts that did not perform as well on assessments engaged in similar resource strategies but with less success, or faced other limits to organizational capacity that we cannot observe. Future research

is needed to examine how organizational resources may have been used differently in districts and schools with different student achievement trends.

Given that our study foregrounded leaders' and teachers' experiences, it will also be important for future research to include students' and families' perspectives on learning during and beyond crisis. Such research is especially needed in light of findings demonstrating how strong staff-student and school-family relationships served as valuable resources in the districts studied. Finally, research is urgently needed to address effective strategies for promoting educator and leader well-being and addressing burnout. Such strategies will be critical for ensuring districts and schools can support and sustain the people and relationships who maintain students' access to learning opportunities when needed most.

REFERENCES

- Bhaduri, R. M. 2019. Leveraging Culture and Leadership in Crisis Management. *European Journal of Training and Development* 43 (5/6): 534–549. <https://doi.org/10.1108/EJTD-10-2018-0109>
- Bryk, A. S. (2010). Organizing schools for improvement. *Phi Delta Kappan*, 91(7), 23–30. <https://doi.org/10.1177/003172171009100705>
- Bryk, A. S., & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. Russell Sage Foundation. <https://www.jstor.org/stable/10.7758/9781610440967>
- Bryk, A. S., Sebring, P. B., Allensworth, E., Luppesco, S., & Easton, J. Q. (2010). *Organizing schools for improvement: Lessons from Chicago*. University of Chicago Press. <https://press.uchicago.edu/ucp/books/book/chicago/O/bo8212979.html>
- Camp, A. M., & Zamarro, G. (2022). Determinants of ethnic differences in school modality choices during the COVID-19 crisis. *Educational Researcher*, 51(1), 6–16. <https://doi.org/10.3102/0013189X211057562>
- Christian, A., Jacob, B., & Singleton, J. D. (2022). *Assessing School District Decision-Making: Evidence from the COVID-19 Pandemic*. National Bureau of Economic Research. <https://doi.org/10.3386/w30520>
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications. <https://us.sagepub.com/en-us/nam/qualitative-inquiry-and-research-design/book246896>
- Davis, C. R., Grooms, J., Ortega, A., Rubalcaba, J. A.-A., & Vargas, E. (2021). Distance learning and parental mental health during COVID-19. *Educational Researcher*, 50(1), 61–64. <https://doi.org/10.3102/0013189X20978806>
- DeArmond, M., Chu, L., & Gundapaneni, P. (2021). *How Are School Districts Addressing Student Social-Emotional Needs during the Pandemic?* ERIC. <https://files.eric.ed.gov/fulltext/ED610612.pdf>
- DeMatthews, D., Reyes, P., Solis Rodriguez, J., & Knight, D. (2021). Principal perceptions of the distance learning transition during the pandemic. *Educational Policy*, 1–23. <https://doi.org/10.1177/08959048211049421>

- De Voto, C. & Superfine, B. M. (2023): The crisis you can't plan for: K-12 leader responses and organizational preparedness during COVID-19, *School Leadership & Management*, <https://doi.org/10.1080/13632434.2023.2171003>
- Domina, T., Hashim, A., Kearney, C., Pham, L., & Smith, C. (2022). *COVID-19 and the system resilience of public education: A view from North Carolina*. <https://www.urban.org/sites/default/files/2022-04/COVID-19%20and%20the%20System%20Resilience%20of%20Public%20Education%20A%20View%20from%20North%20Carolina.pdf>
- Elliott, D., Harris, K., & Baron, S. (2005). Crisis management and services marketing. *Journal of Services Marketing*, 19,(5). <https://doi.org/10.1108/08876040510609943>
- Goldhaber, D., Kane, T. J., McEachin, A., Morton, E., Patterson, T., & Staiger, D. O. (2022). *The consequences of remote and hybrid instruction during the pandemic*. National Bureau of Economic Research. <https://doi.org/10.3386/w30010>
- Grissom, J. A., & Condon, L. (2021). Leading schools and districts in times of crisis. *Educational Researcher*, 50(5), 315–324. <https://doi.org/10.3102/0013189X211023112>
- Grooms, A. A., & Childs, J. (2021). “We need to do better by kids”: Changing routines in US schools in response to COVID-19 school closures. *Journal of Education for Students Placed at Risk (JESPAR)*, 26(2), 135–156. <https://doi.org/10.1080/10824669.2021.1906251>
- Gross, B., Opalka, A., & Gundapaneni, P. (2021). *School reopening trends offer districts the opportunity to start planning beyond the pandemic*. Center on Reinventing Public Education. https://crpe.org/wp-content/uploads/final_rep_sample_brief_march_2021.pdf
- Grossman, G., Kim, S., Rexer, J. M., & Thirumurthy, H. (2020). Political partisanship influences behavioral responses to governors’ recommendations for COVID-19 prevention in the United States. *Proceedings of the National Academy of Sciences*, 117(39), 24144–24153. <https://doi.org/10.1073/pnas.2007835117>
- Grossmann, M., Reckhow, S., Strunk, K. O., & Turner, M. (2021). All states close but red districts reopen: The politics of in-person schooling during the COVID-19 pandemic. *Educational Researcher*, 50(9) 637–648. <https://doi.org/10.3102/0013189X211048840>
- Haderlein, S. K., Saavedra, A. R., Polikoff, M. S., Silver, D., Rapaport, A., & Garland, M. (2021). Disparities in educational access in the time of COVID: Evidence from

a nationally representative panel of American families. *AERA Open*, 7, <https://doi.org/10.1177/23328584211041350>

- Halloran, C., Jack, R., Okun, J. C., & Oster, E. (2021). *Pandemic schooling mode and student test scores: Evidence from US states*. National Bureau of Economic Research. <https://doi.org/10.3386/w29497>
- Hashim, A. K., & Weddle, H. (2022). *State Education Leaders' Perspectives on Leading and Learning During the COVID-19 Pandemic*. Education Policy Innovation Collaborative. https://epicedpolicy.org/wp-content/uploads/2022/07/COVID-19-Survey-Brief_Jul2022.pdf
- Hopkins, B., Turner, M., Lovitz, T., Kilbride, T., & Strunk, K. O. (2021). *A look inside Michigan classrooms: Educators' perceptions of COVID-19 ad K-12 Schooling in the Fall of 2020*. Education Policy Innovation Collaborative. https://epicedpolicy.org/wp-content/uploads/2021/04/Fall_COIVD_Survey_Policy_Brief_April2021.pdf
- Jabbar, H., Lenhoff, S. W., Marsh, J. A., Daramola, E. J., Alonso, J., Singer, J., Watson, C. & Mulfinger, L. (2023). *System Responses to Crisis: Organizational Perspectives*. REACH Report, Year 3. The National Center for Research on Education Access and Choice: New Orleans, Louisiana.
- James, E. H., & Wooten, L. P. (2005). Leadership as (Un) usual: How to display competence in times of crisis. *Organizational Dynamics*, 34(2), 141–152. <http://doi.org/10.1016/j.orgdyn.2005.03.005>
- 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), 115–136. <https://doi.org/10.3390/educsci11030115>
- Kilbride, T., Hopkins, B., Strunk, K., & Imberman, S. (2021). *K-8 student achievement and achievement gaps on Michigan's 2020–21 benchmark and summative assessments*. Education Policy Innovation Collaborative. https://epicedpolicy.org/wp-content/uploads/2022/01/EPIC_BenchmarkII_Rptv1_Dec2021.pdf
- Kilbride, T., Hopkins, B., Strunk, K., & Imberman, S. (2022). *Michigan's Fall 2021 Benchmark Assessments*. Education Policy Innovation Collaborative. https://epicedpolicy.org/wp-content/uploads/2022/04/Benchmark_Report_April2022.pdf

- Kilbride, T., Hopkins, B., Strunk, K., & Yu, D. (2022). *Michigan's 2020-21 and 2021-22 Benchmark Assessments*. Education Policy Innovation Collaborative. <https://epicedpolicy.org/mis-2020-21-and-2021-22-benchmark-assessments/>
- Kogan, V., & Lavertu, S. (2021). *The COVID-19 pandemic and student achievement on Ohio's third-grade English language arts assessment*. https://glenn.osu.edu/sites/default/files/2021-09/ODE_ThirdGradeELA_KL_1-27-2021.pdf
- Kraatz, M. S., & Zajac, E. J. (2001). How organizational resources affect strategic change and performance in turbulent environments: Theory and evidence. *Organization Science*, 12(5), 632–657. <https://psycnet.apa.org/doi/10.1287/orsc.12.5.632.10088>
- Kraft, M. A., Simon, N. S., & Lyon, M. A. (2021). Sustaining a sense of success: The protective role of teacher working conditions during the COVID-19 pandemic. *Journal of Research on Educational Effectiveness*, 14(4), 727–769. <https://doi.org/10.1080/19345747.2021.1938314>
- Kuhfeld, M., Soland, J., & Lewis, K. (2022). Test score patterns across three COVID-19-impacted school years. *Educational Researcher*, 51(7), 500–506. <https://doi.org/10.26300/ga82-6v47>
- Kuhfeld, M., Soland, J., Tarasawa, B., Johnson, A., Ruzek, E., & Liu, J. (2020). Projecting the potential impact of COVID-19 school closures on academic achievement. *Educational Researcher*, 49(8), 549–565. <https://doi.org/10.3102/0013189X20965918>
- Lipsitz, K., & Pop-Eleches, G. (2020). *The partisan divide in social distancing*. Social Science Research Network. <https://doi.org/10.2139/ssrn.3595695>
- Lochmiller, C. R. (2021). *Rural superintendents' responses to COVID-19: Navigating local control during a public health crisis*. 6, 617058. <http://doi.org/10.3389/feduc.2021.617058>
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization science*, 2(1), 71-87. <https://www.jstor.org/stable/2634940>
- Marsh, J. A., Koppich, J. E., Humphrey, D. C., Mulfinger, L. S., Allbright, T. N., Alonso, J., Bridgeforth, J., Daramola, E. J., Enoch-Stevens, T., & Kennedy, K. E. (2022). Crisis Response in California School Districts: Leadership, Partnership, and Community. *Policy Analysis for California Education, PACE*. https://www.edpolicyinca.org/sites/default/files/2022-06/r_marsh-jun2022.pdf

- McLaughlin, M. W. 1987. "Learning from Experience: Lessons from Policy Implementation." *Educational Evaluation and Policy Analysis* 9 (2): 171–178.
<https://doi.org/10.3102/01623737009002171>
- McLeod, S., & Dulsky, S. (2021). *Resilience, reorientation, and reinvention: School leadership during the early months of the COVID-19 pandemic*. 70.
<https://doi.org/10.3389/feduc.2021.637075>
- Montgomery, C. A. (1995). *Resource-based and Evolutionary Theories of the Firm: Towards a Synthesis*. Springer Science & Business Media.
<https://doi.org/10.1007/978-1-4615-2201-0>
- National Assessment of Educational Progress. (2022a). *2022 Mathematics Survey Questionnaire Results*.
<https://www.nationsreportcard.gov/mathematics/survey-questionnaires/?grade=8>
- National Assessment of Educational Progress. (2022b). *2022 Reading Survey Questionnaire Results*. <https://www.nationsreportcard.gov/reading/survey-questionnaires/?grade=4>
- Newmann, F. M., Smith, B., Allensworth, E., & Bryk, A. (2001). Instructional program coherence: What is it and why it should guide school improvement policy. *Educational Evaluation and Policy Analysis*, 23, 297–321.
<https://doi.org/10.3102/01623737023004297>
- Ondrasek, N., Edgerton, A., & Bland, J. (2021). Reopening schools safely in California: District examples of multilayered mitigation. Learning Policy Institute.
<https://learningpolicyinstitute.org/product/safe-school-reopening-ca-multi-district-brief>
- Pearson, C. M., and J. A. Clair. 1998. "Reframing Crisis Management." *Academy of Management Review* 23 (1): 59–76. <https://doi.org/10.2307/259099>
- Pier, L., Hough, H. J., Christian, M., Bookman, N., Wilkenfeld, B., & Miller, R. (2021). *COVID-19 and the educational equity crisis*. PACE.
<https://edpolicyinca.org/newsroom/covid-19-and-educational-equity-crisis>
- Potter, P. D., Pavlakis, A. E., & Roberts, J. K. (2021). Calming the storm: Natural disasters, crisis management, and school leadership. *Journal of Cases in Educational Leadership*, 24(2), 96–111.
<https://doi.org/10.1177/1555458920973695>

- Pressley, T., & Ha, C. (2021). Teaching during a Pandemic: United States teachers' self-efficacy during COVID-19. *Teaching and Teacher Education, 106*, 1–9. <https://doi.org/10.1016%2Fj.tate.2021.103465>
- Rigby, J., Forman, S., Foster, L., Kazemi, E., & Clancey, S. (2020, July 31). Promising district leadership practices for transformative change in the context of COVID-19. University of Washington. <https://education.uw.edu/sites/default/files/pdf/Promising-Leadership-Practices-Brief.pdf>
- Sass, T., & Goldring, T. (2021). *Student achievement growth during the COVID- 19 pandemic: Insights from metro-Atlanta school districts*. Georgia Policy Labs, Andrew Young School of Policy Studies, Georgia State University. https://gpl.gsu.edu/download/student-achievement-growth-during-the-covid-19-pandemic-report/?ind=1620902643226&filename=Achievement%20Growth%20During%20COVID-19_Report_20210512_FINAL.pdf&wpdmdl=2105&refesh=609e93df82b691621005279
- Scott, W. R., & Davis, G. F. (2015). *Organizations and organizing: Rational, natural and open systems perspectives*. Routledge. <https://doi.org/10.4324/9781315663371>
- Singer, J., Marsh, J. A., Menefee-Libey, D., Alonso, J., Bradley, D., & Tracy, H. (2022). *The politics of school reopening during COVID-19: A multiple case study of five urban districts in the 2020-21 School Year*. <https://doi.org/10.26300/0bke-pz42>
- Smith, L., & Riley, D. (2012). School leadership in times of crisis. *School Leadership & Management, 32*(1), 57–71. <https://doi.org/10.1080/13632434.2011.614941>
- Stone-Johnson, C., & Weiner, J. M. (2020). Principal professionalism in the time of COVID-19. *Journal of Professional Capital and Community*. <http://dx.doi.org/10.1108/JPCC-05-2020-0020>
- Thornton, K. (2021). Leading through COVID-19: New Zealand secondary principals describe their reality. *Educational Management Administration & Leadership, 49*(3), 393–409. <https://doi.org/10.1177/1741143220985110>
- Weddle, H., Hashim, A., & Irondi, O. (2022). *Leading and Learning During the COVID-19 Pandemic: District and School Leaders' Perspectives*. Education Policy Innovation Collaborative. <https://epicedpolicy.org/district-leaders-perspectives-on-the-covid19-pandemic/>
- Wooten, L. P., & James, E. H. (2008). Linking crisis management and leadership competencies: The role of human resource development. *Advances in*

Developing Human Resources, 10(3), 352–379.

<https://psycnet.apa.org/doi/10.1177/1523422308316450>

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Sage Publications, Inc. <https://www.worldcat.org/title/case-study-research-design-and-methods/oclc/50866947>

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Sage Publications, Inc. <https://www.worldcat.org/title/case-study-research-design-and-methods/oclc/835951262>

Table 1: Summary of District Cases						
District	Modality	Test Scores (actual-predicted)	District Type	Urbanicity	Student Dem	Resources
A	In-Person	Reading: 0.16 Math: 0.42	LEA	Suburb: Large	Non-White: High ED: Medium EL: High SWD: Medium	Pupil exp: High Tchr exp: Medium
B	In-Person	Reading: 0.12 Math: 0.54	LEA	Suburb: Large	Non-White: Medium ED: Low EL: Medium SWD: Medium	Pupil exp: Medium Tchr exp: Medium
C	Hybrid	Reading: -0.02 Math: 0.17	LEA	Rural: Fringe	Non-White: Low ED: Low EL: Medium SWD: Low	Pupil exp: Medium Tchr exp: High
D	Hybrid	Reading: 0.10 Math: -0.06	LEA	City: Small	Non-White: Low ED: Medium EL: High SWD: Low	Pupil exp: High Tchr exp: Medium
E	Remote	Reading: 0.17 Math: -0.09	PSA	City: Large	Non-White: High ED: High EL: Medium SWD: Low	Pupil exp: Low Tchr exp: Low

Note: Reading and math performance reported as the actual minus predicted Spring 2021 test scores. Positive values indicate a larger difference between actual and predicted test scores and hence districts that are relatively higher performing. LEA means “local education agency” and PSA refers to “public school academy,” or a charter district. District size refers to total enrollment. Non-White refers to the percent of students in the district who are Black, Asian, Hispanic or Latino/a/x, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander. ED, EL, and SWD indicate the percent of students who are economically disadvantaged, English learners, and who are identified as having a disability respectively. Pupil exp refers to per-pupil expenditures on instruction and tchr exp refers to average years of teacher experience as measured in terms of teaching assignments of school staff from 2002-03 to the 2020-21 school year. For District E (a charter network), we summed enrollment and averaged all other data across charter schools in the network for which assessment data are available. To compare district cases to districts across the state, we divide all Michigan districts into terciles based on the attributes reported in this table (i.e., small, medium, and large). Because we limited district samples to those that tested a large enough number of students to observe reliable trends in test performance, our final sample only includes districts in the upper tercile for student enrollment across the state of Michigan.

Table 2: Interview Participants		
District	Instructional Modality in 2020-2021	Interview Participants
District A	In-Person	District leaders = 5 School and teacher leaders = 3
District B	In-Person	District leaders = 5 School and teacher leaders = 4
District C	Hybrid	District leaders = 4 School and teacher leaders = 7
District D	Hybrid	District leaders = 6 School and teacher leaders = 4
District E	Remote	District leaders = 3 School and teacher leaders = 5

Figure 1: Findings on crisis response of district cases to COVID-19 pandemic and strategic use of organizational resources

