When There’s No Handbook: One Urban Elementary School’s COVID-19 Crisis Response

Holly Hungerford-Kresser1 · Carla Amaro-Jiménez1 · Kathryn Pole1

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Abstract
Using qualitative methods and a Communities of Practice framework, we studied one urban elementary school’s crisis response to COVID-19 during the emergency remote education phase, Spring 2020. In the last two years, there has been overwhelming variety in schools’ instructional modalities in our state—face-to-face, remote, hybrid—leaving Spring 2020 the first fully remote experience to study. In this study we focus on the remote learning pivot, specifically highlighting the campus’ use of digital literacies and the caregiver, student, and teacher responses to the immediate, unplanned modality change. Findings are meant to assist schools in planning ahead of future crises, including ways to use digital literacies to strengthen learning communities.

Keywords Urban education · Digital literacies · COVID-19 · Crisis response · Elementary school

Introduction

“…There are no resources for this. Like, nobody has been through this. This isn’t something that there’s a rulebook or a handbook for.” (Parent of a 2nd grade student, Mountainview Elementary)

Though COVID-19 is now part of the nation’s collective vocabulary, it is crucial to understand the initial, local, urban school responses to the pandemic to provide insight into future crises that impact urban education, as well as schools’ preparedness or lack thereof in transitioning students and educational practices to new platforms. In Spring 2020, COVID-19 caused school closures and a rapid pivot to at-home learning via emergency remote teaching (Garcia & Weiss, 2020), with the majority of teachers and students in the country leaving the school building for

1 The University of Texas at Arlington, Arlington, USA
Spring Break, only to find their breaks extended, their face-to-face semesters paused, and all in-person instruction indefinitely switched to fully virtual. In Spring 2020, when the pandemic was new to the nation’s consciousness and we were experiencing the crisis in real time, we wondered what this meant for urban public schools.

With an additional four semesters and three summers now completed, there have been numerous lessons learned and plans for moving forward—both anecdotal and in writing from school boards, superintendents, state agencies and local campuses. These plans are changing in real time, based on infection rates and varied state responses to the pandemic. In our state, schools were closed in Spring 2020, but reopened ahead of the rest of the country mid-Fall and currently remain physically open or risk losing their state funding. This window when schools were physically closed is now a fixed period, able to be studied as an initial crisis response. Considering the school as a Community of Practice (CoP) we focused on learning and community-building and how it changed as the campus went completely virtual. We studied this school’s crisis response with the following research questions: What can we learn from one elementary school’s emergency remote pivot that can help educators with future crisis responses? How did community stakeholders react to the school’s changes forced by the COVID-19 pandemic?

Theoretical Framework

Theories of CoP, situated in sociocultural learning theory (Jimenez-Silva & Olson, 2012; Lave & Wenger, 1998), argue that people develop identities via interactions and participation through social activities taking place in and around CoPs. All human development is social, mediated by particular practices, and language is a fundamental meaning-making tool. Context and activity are vital, and humans make meaning by interacting with others (Jimenez-Silva & Olson, 2012; Moll, 2000; Vygotsky, 1978). Wenger (1998) negates the typically individualized view of learning by encouraging a view of learning as a primarily social process. Participation in a CoP shapes what we do as well as how we interpret things we do.

While effective as a framework for this study, Communities of Practice has critiques across a variety of spaces, including online and blending learning (Henri & Pudelko, 2003; Smith, et al., 2017) and workplace learning (Fuller, et al., 2005). While not a study in the field of education, Fuller, et al., 2005 provides important considerations when looking at urban settings through the lens of the CoP. Drawing on Gee, et al. (1996), they argue CoPs are not “benign” entities, and even though the theory of the CoP ascribes community as “stable, cohesive, and welcoming,” there is still a need for case studies to “explore more dynamic settings, where power relations and inequalities are more explicitly addressed” (p. 53). At the same time, learning is also impacted by the other CoPs members have access to. While difficult to pinpoint, when focusing on CoPs in urban settings, these power relations and access to other CoPs are important to recognize. Data analysis should consider layers of power and access.

Communities create practices over time as a product of pursuing similar goals (Wenger, 1998). There is a common cache of resources, including: shared
routines, tools, language, rituals, stories, symbols, and histories that help members of the CoP engage in their CoP-related work (Skerrett et al., 2018). In fact, “engaged in practice, members develop, negotiate, and share meaning; create and merge identities; and, depending on the forms of participation, experience deep learning about their practice that can improve the community and its practices and transform members’ identities” (Skerrett et al., 2018, p. 121). Arguably, all members of CoP in a school context have the shared pursuit of education for students, even though their individual goals might look different based on their own participation. Within this CoP, there are intermingling identities forged in conjunction with the school community, based in part on forms of participation in the CoP: student, caregiver, faculty, staff, principal. These different and sometimes overlapping identities can complicate shared meaning-making, making language and communication tools essential for messaging. We were curious how a major disruption like a pandemic interrupts routines and sheds light on successful outcomes as well as complications.

Prior to the pandemic, an elementary school could easily be labeled a CoP. This is particularly true of Mountainview Elementary School (pseudonym), where this study took place. The principal’s view of the campus as a CoP, focused on its learners, emphasized compassionate teaching and learning. We wondered how a CoP might evolve when previous methods of meaning-making are interrupted by new practices, particularly when community-building hinges on these new practices and the literacies associated with them. As the COVID-19 pandemic unfolded, technology and tools were directly involved in the maintenance of the CoP (Smith et al., 2017). During the pandemic, campus leaders, faculty and staff worked with families and students to maintain the levels of commitment to community that existed prior to moving online. As members of the CoP work to make meaning while navigating brand-new experiences, often under extreme duress, practice changes and membership in the community and the ability to actively participate takes on new formats and spaces, just like at Mountainview during the crisis phase of the pandemic. This eventually leads to shifts in identity among the CoP members, but it is the initial alterations in practice to maintain active participation in this community that are important to this study.

Relevant Literature

Technology was the tool that drove pandemic responses across the country, and Mountainview was no exception. Prior to the pandemic, this urban elementary school had existed and communicated largely in face-to-face contexts. Thus, in order to study the initial response to the crisis, it is necessary to understand how technology served as the dominant means of communication and form for continuing CoP participation, whether participants were ready or not. We begin with a brief explanation that highlights Riverlane Independent School District (RISD) as an urban emergent district (Milner, 2012), and then move into the relevant technology literature.
Urban Schools

Mountainview Elementary is located in RISD, an “urban emergent” district (Milner, 2012). Researchers encourage using more than population-only statistics to define urban schools (Beard & Thomson, 2021; Schaffer et al., 2018), and suggest utilizing Milner’s three-tiered framework to better define urban schools. Milner offers three categories of urban schools: (1) Urban intensive, (2) Urban emergent, and (3) Urban characteristic. Urban schools are concentrated in large cities across the United States while “urban characteristic schools” are not in large metropolitan areas but are experiencing similar challenges to urban communities. These can be rural or even suburban. However, for the purposes of this paper we focus on the “urban emergent” category to help contextualize the district and campus we have focused on.

Urban emergent schools are located in cities, not as large as major cities like New York, Chicago, or Houston, but cities that still exhibit similar characteristics and have similar struggles to larger “urban intensive” districts, particularly as they relate to diversity (e.g., linguistic, cultural) in student demographics (Moldovan et al., 2021; Schaffer et al., 2018). Due to socioeconomics, district demographics, and the large ELL population, RISD is considered an urban emergent district in this study. As is common in urban emergent districts, RISD was a district of choice, meaning caregivers can transfer their students to any campus, including the “Academies” or magnets crated by the district, thus removing the traditional boundaries set by a zip code, attempting to increase access for all families. However, this designation is not without criticism as it is often an option utilized by more privileged families with more resources, including available transportation.

Digital Literacies

The phrase “emergency remote teaching” (Bozkurt & Sharma, 2020; Garcia & Weiss, 2020) was used to define the type of teaching taking place in the spring 2020 semester. Scholars and practitioners balked at using “remote learning” or “virtual learning,” because of the lack of time for preparation and a lack of time for training in online pedagogies and course development. The semester was unique, and new terminology to describe it was needed. Typically, when talking about technologies as literacies, we think in terms of classroom tools, learning, and how to integrate technology into face-to-face classrooms (e.g. Karchmer-Klein & Shinas, 2012; Nichols & Johnston, 2020). We also think about ways classrooms, students, and teachers use technologies to assist in communication and assessment in classrooms—supplements to learning, tools for teaching (Herrington & Kervin, 2007). However, the pandemic caused a different kind of reliance on technology—it was needed for every education-related activity, not just classroom teaching. Teachers used technology to talk to parents, students, and one another and their administrators. Families used technology to receive instructions as well as curriculum from their schools. All necessary training on platforms was
given online, nearly every educational interaction for the end of the spring semester was virtual, and phrases like “Zoom fatigue” became commonplace.

The Technological Divide, Families, and Equity

In its narrowest definition, the “digital divide” refers to technology access; students are considered either the “haves or have nots” (Dolan, 2016). Finding this problematic, Dolan (2016) argued for a more nuanced definition of the “technological divide”—one that incorporates the ways in which technology is used or not used by students. This perspective recognizes that access is complicated by more than just having a computer. There are connectivity and bandwidth issues, software availability, student and teachers’ knowledge and use of technologies, as well as limiting factors like poverty, cultural misunderstandings, and lack of teacher training. The one factor that cuts across all studies as an impact on digital literacies is socioeconomic status, and teachers are either a “major supporting or limiting factor on how students use technology” (Dolan, 2016, p. 28). The technological divide, or the ways technology exacerbates inequities among students is a common theme in educational technology literature (Dolan, 2016; Garcia & Weiss, 2020). The “double digital divide” occurs because low-income, Black, and Hispanic children are the ones more likely to lack access (Garcia et al., 2020). For many, this was an immediate concern prior to COVID-19, and with the pandemic it became even more urgent (Assuncao Flores & Gago, 2020; Garcia et al., 2020; Reich, et al., 2020). The technological divide becomes even more complex when factoring in the internet speeds needed for students to manage district platforms, with many people from the same home being online at the same time, as well as the necessary sharing of devices needed for schoolwork with parents or siblings (Garcia & Weiss, 2020). Often considered in terms of instruction, in pandemic times, we broaden consideration of the technological divide and consider the impact on entire families, not just classroom learning.

Even before COVID-19, studying technology’s impact was complicated. Dolan (2016) argues studying a topic in the midst of its “exploding growth” is difficult, with the rapidly changing nature of technology as well as its educational uses making it “theoretically challenging” (p. 17). Garcia and Weiss (2020) emphasize that in this COVID-19 era the “sudden, severe, and universal nature of this crisis” means that definitions we have used for years in educational research for remote learning and homeschool are only partially applicable at best (p. 5). For online learning to be effective, the necessary devices must exist, but teachers and students must also be proficient at using them. In the pandemic, the pivot to online learning was swift and intense. Early data suggest:

…over the past few months as children transitioned suddenly to online learning, they did so without necessarily having the practice or experience to learn well online, and that the transition required them to shift their device-use habits from leisure to studying… remote learning demands that children ignore the distractions that are now in front of their faces all the time, and to which they, like all of us are naturally drawn. (Garcia & Weiss, 2020, p. 9)
While appropriate training for teachers and students can put this familiarity to use in the classroom (Dolan, 2016; Sutton, 2011), it does not necessarily translate immediately and it misses the foundational pieces of effective online education in the best of circumstances, much less in a crisis the size of the pandemic (Leu et al., 2015). As Moldavan et al. (2021) argue, digital inequalities will continue to persist unless strategic steps are taken to counter them, particular in urban schools.

According to UNESCO (2020), 90% of the world’s school population, or 1.57 billion students, were impacted by COVID-19 school closures. As a result, caregivers all over the world were thrust into unfamiliar roles during pandemic schooling—many balancing their own careers and assisting in their children’s education (Garbe et al., 2020). There is some research on parental support and student engagement in virtual learning environments (e.g., Borup et al., 2014), arguing that unfamiliar roles are often a struggle for caregivers to understand, but increased instructional caregiver responsibilities are linked to student success (Garbe, et al., 2020; Murphy & Rodrigues-Manzanares, 2009). Emergency online learning forced school systems into new territory and often unfamiliar platforms, but it is important to remember the impact on families as well (Pew Research Center, 2020).

While not having adequate technology access would impede learning in this high-stakes era of student testing and accountability, it is imperative to remember how during crises, a lack of access to reliable technology can limit socioemotional engagement with the school system, or communication that results in knowing what comes next. Thus, the students and caregivers likely hit the hardest in an immediate crisis would be impacted in multiple ways, not just in accessing curriculum and receiving helpful instruction. For this reason, we decided to study an elementary school—a tight knit community (of practice)—used to communicating regularly about student learning and community events. Studying how optional tools become inescapable lifelines can offer unique insight to the field of education and how technologies and crisis responses uniquely intertwined.

**Method**

This is a qualitative case study of one elementary school (Yin, 2009), exploring one school community’s response to the initial crisis created by COVID-19. Data sources included: questionnaires, interviews, and available communications from email and social media to collect data on the crisis response (Yin, 2009). Our research questions were: (1) What can we learn from one elementary school’s emergency remote pivot that can help educators with future crisis responses? (2) How did community stakeholders react to the school’s changes forced by the COVID-19 pandemic?

**Study Design**

We chose a single-case design because we wanted to explore, in-depth, the layered response to one school’s crisis plan during the pandemic. The benefit of this study design was an ability to focus on context, highlight narratives, and focus on any
revelatory information this campus could offer (Hammerness & Matsko, 2012; Yin, 2009). While the world is dealing with the pandemic, each school building is unique and that context is necessary to help glean insight from findings. It is often argued that there is an over-reliance on case study in educational research (i.e., Cochran-Smith & Zeichner, 2005) and that more focus should be given to large-scale comprehensive studies, and we agree, particularly with studying pandemic outcomes. Yet qualitative research broadly, and case study research more specifically, can offer nuance to the large numbers and data sets that will likely heavily impact the ways we move forward. We argue for balance in research method when looking at pandemic outcomes and future crisis responses.

**Researcher Positionality**

When the pandemic started, our research in schools came to an abrupt halt. However, as school districts began to pivot to online learning, we had the urge to document the response to what was happening. We purposefully chose RISD because all three authors had conducted projects or research studies in RISD sites before the pandemic, thus helping us to secure the much-needed permissions at the district level. First Author’s children (3rd and 6th grade) attended Mountainview Elementary during the 2019–2020 school year, and this allowed us to secure access to conduct the research study at the school level. However, the selection was not only about access.

As Holly spoke with colleagues and friends about school responses to the pandemic, and stories piled up of elementary-aged children sitting for hours in front of computers, she felt what she was seeing in her children’s school was different and worthy of study. We all found the school, as a single case, particularly fascinating. In order to try and maintain impartiality when collecting data, Carla and Kathryn conducted interviews with any caregiver Holly knew personally, and scrubbed transcripts of identifying data. Questionnaires were already anonymous. Kathryn conducted the interview with the principal. Holly allowed her children to participate in the student focus groups, but she did not fill out a questionnaire and participated only as an interviewer in the Zoom interviews with caregivers she had not met before.

**Setting**

Mountainview Elementary is located in Riverlane Independent School District (RISD). We first describe the district for context, followed by a description of the campus, our study site. Next, in order to provide deeper context, we highlight the campus’s COVID-19 crisis response as part of the setting description.

**The District**

RISD is an urban school district located in a diverse Southwestern city with a population near 400,000 people. The 2018 Census numbers cite the city population as: 39.1% white, 22.5% black, 29.2% Hispanic, and 6.9% Asian, with a 15.7% poverty
rate and a median household income of $58,502. RISD began as a bedroom community between two major metropolitan areas, but has grown into an urban city over time, and deals with similar issues to its neighboring cities. RISD has 9 high schools, 9 junior highs, and 56 elementary schools, with close to 60,000 students enrolled. A minority-majority district, Hispanic/Latino students comprise approximately 47% of the student population, while 25% are African-American, and 19% are White. A “district of choice,” caregivers can use a transfer option to move students to open non-neighborhood schools.

The Campus

We chose Mountainview Elementary for a number of reasons. First, we noticed extreme variety in how local districts and campuses were handling the emergency remote pivot; RISD, for example, had a phase-in plan for technology (we address this in detail below) and Mountainview seemed to be even more unique than other campuses—with a strong community presence online. Second, the principal at Mountainview was in her second year and already facing a pandemic; this made us curious about how she would lead her campus community. Third, the school is a part of an urban district, and our work in urban education made us particularly curious about how the campus would handle the pivot, what kind of support they would receive from the district, and how students and caregivers at Mountainview would respond to the changes.

Mountainview is a campus designated to accept transfers. As such, the student population numbers change dramatically year-to-year, depending on open transfer slots and student movement. Enrollment is mixed between neighborhood students and students who transfer from across RISD. In Spring 2020, Mountainview had 515 students, 70 faculty and staff, and from August-March, had two campus administrators: the principal and assistant principal. The assistant principal passed away in mid-March, leaving the campus with a single upper-level administrator to manage the crisis response through August 2020. Principal Gomez (pseudonym), interviewed for this study, was in her second year as principal, with another partial school year served as the campus’s interim principal.

Mountainview’s COVID-19 Response

The first day of Spring Break 2020 for Mountainview was Monday, March 9th. Spring Break was extended an additional week, with students moving to online learning by Tuesday, March 24th. RISD used a three-phase model to transition students into online learning. Phase 1, which lasted two weeks, provided a list of options for students to practice working online, learning from already available tools. These included lessons in Google Classroom, with minimum structure, and access to a variety of websites the district had access to, like Flocabulary. There were choice boards encouraging students to explore science and math with home activities, and options for reading and writing tasks. At the campus level, teachers started hosting regular Zoom calls with students, most of which were for entire grade levels instead of homerooms, and Mountainview began distributing technology and
hosting Facebook live events and other drive-by options for students to stay connected. **Phase 2** was a district-led move to Canvas and Seesaw. These courses were created by Instructional Specialists at the district level. Students were able to practice in the shells, learning the ins-and-outs of both platforms, while teachers were able to keep working on creating their individual courses to go live in Phase 3. **Phase 3** opened three weeks later. Students were then placed in Seesaw (pre-K-2nd grade) or Canvas courses (3rd grade and above) with their teachers, given pass/fail assignments, and attended live Zoom meetings, though the majority of work was asynchronous, meant to give students and caregivers maximum flexibility in schedules as life was disrupted for so many. The RISD plan to phase in the technology was meant to help students and parents adapt to the tools, while giving teachers time to set up their individual classrooms (District Correspondence, March–May). Prior to the pandemic, the district had purchased Seesaw and Canvas, but had not required teachers to use either platform; it was optional; the most common platform used in online learning at the school was Google Classroom (Principal Interview).

**Participants**

A total of 139 online questionnaires (104 caregivers and 35 teachers and staff) were started, with some marked completed, and some where participants skipped particular questions. When citing individual question answer percentages, we provide the number of respondents. We also conducted video interviews: 8 with caregivers, 1 with the principal, 2 student focus groups (4 students and 2 students respectively), and 3 individual student interviews. While some of the caregiver interview participants were teachers at other schools in RISD, none of the interview participants were teachers at Mountainview. However, the teachers did give ample qualitative feedback on the comments sections of the questionnaire.

**Data Sources**

Data collection took place from May through July of 2020. Questionnaires created using Qualtrics were sent for voluntary participation via email, Class Dojo, and the campus Facebook page. The questionnaire contained both closed- and open-ended questions; the questions participants completed were tailored to the group they belonged to (e.g., parent/caregiver, teacher, staff). See Table 1 for sample questions, listed by group. All participants were asked for general demographic information. Caregivers or teachers and staff were asked children’s ages and current grade level. Teachers were asked about years of experience and years working at Mountainview. At the end of each survey participants were invited to be interviewed; students were invited as well. We conducted interviews via Zoom, with questions centering on evaluating the district and campus response to the pandemic school closure. We secured caregiver consent for student interviews, and students gave verbal consent before interviews began (Yin, 2009). Interviews and focus groups were transcribed verbatim and analyzed in their entirety. In addition to the questionnaire and interview data, we also used Facebook messages, emails, and other electronic
communications from the school to help triangulate our data (Denzin, 1978; Fontana & Frey, 2000).

**Data Analysis**

Using the Constant Comparative Method (Glaser & Strauss, 1967), we looked specifically for instances where participants articulated (1) positivity, (2) difficulty, and (3) points of tension in decision-making or in response to decision-making, based on their participation in the CoP. As we individually analyzed the interview and questionnaire data for each of these elements, we each needed to create a neutral code or a “COVID code,” meant to highlight understanding of COVID-19 or the pandemic’s impact on schooling in the student interviews. When we met to discuss our individual codes, we recognized if not used as a theme, we would eventually need those statements for contextualizing student experiences. Once individual codes were created by each researcher, we discussed our codes, and the rationale behind coding particular data particular ways. As a group, we also discussed outliers identified during individual coding. Next, we reanalyzed data together, collapsing codes and developing themes.

**Findings and Analysis**

Each finding discussed below was clear throughout questionnaire responses and individual interviews and well-triangulated by other artifacts like social media, email, and Class Dojo. We have limited our themes to those directly connected to digital literacies and what we refer to as “community-strengthening literacies.” First, we define community-strengthening literacies, highlighting the digital tools used by this elementary school to reach, teach, and encourage their learning community. Next, we look at the concept in classroom contexts as well as campus-wide contexts. Finally we focus on the challenges in doing this work.
Community-Strengthening Literacies in a Crisis Response: #mountainviewbettertogether

We were grieving a loss but there was so much work to be done. And it was like being built as we were going. We didn’t have a framework…We created our hashtag at the beginning of COVID-19… so we could follow the hashtag and you could see your students and parents… (Principal Gomez, Interview).

Technology is often discussed as a tool within the confines of content learning. When the classroom disappears altogether there can be a seismic shift in the traditional discussion of classroom technologies. We were struck by the ways teachers and administration opted to use technologies on this campus. Yes, there was district-wide use of Canvas and a variety of technologies embedded into the courses themselves. Yet we were drawn to the use of technology to strengthen community and to communicate regularly with the campus and students. If we had looked exclusively at technology effectiveness and/or usage in the classroom, we would have missed the bigger picture at Mountainview Elementary.

We were hesitant to call these “community-building” literacies, because we felt like the community was already built ahead of this crisis. Based on her interview, it was clear Principal Gomez had worked hard to build a community before this, and had wanted the school to have a family feel. Using it as an example of “pre-pandemic school life,” she described the physical school space like this:

It was really their classroom. We would have kids out in the hallways doing their flip grids or recording their video responses to each other. You know, kids just really felt like the school was their home and they could walk and use all the space for their learning.

They were not building a CoP; it already existed, and they were strengthening it in the middle of a crisis. The death of the assistant principal at the start of lockdown was a difficult additional crisis for this campus and community, and multiple participants mentioned this event, along with the ways the campus looked to find strength virtually, including a candlelight vigil done entirely online (Field Notes, March 2020). Arguably, only a community could have found its way through these compounded tragedies. Thus, in our analysis, we began naming “community-strengthening” literacies, because we found “community-building” to be inadequate to describe what we were seeing in the campus community.

Campus-Wide Community-Strengthening

CoPs are centered in their language practices and the ways in which participants communicate within the CoP. Prior to the pandemic, Mountainview focused energy on helping their learners feel cared for and wanted families and caregivers to feel connected and know what was going on with the school (Field Notes, April 2020). There was a strong foundation of information-sharing and forging socioemotional connections with students and caregivers. This foundation, though pre-pandemic, was crucial as the school went through various stages of crisis response and local
grief. Through the pivot to emergency remote learning, the campus was building on an already-formed foundation, an expectation, that they would be there for their caregivers and students.

Caregivers thought the school did a great job at this piece. One parent said, “I mean they called, and checked on us, made sure we had everything we needed to succeed.” Every caregiver and student we interviewed mentioned the principal’s weekly challenges. A student explained, “She did challenges and stuff to try and keep us entertained… she was really supportive.” These challenges were communicated via Facebook Live, and then were recorded and sent out as part of her direct communication with caregivers. The first challenge, while the entire community was in a city-wide lockdown, was to put a motivating sign up at your home with the campus hashtag, #mountainviewbettertogether, to encourage people who drove by. Each week the challenge was different: supporting teachers, healthcare workers, families, all through projects students could do at home. At the end of every challenge she collected the creative entries and compiled them into videos or collages to send out to families. She also instituted “Feel Good Fridays,” where a hopeful message was sent out to students and caregivers. These included hilarious TikTok videos created by her staff as well as a heartbreaking tribute to the Assistant Principal who passed away suddenly. One Friday, as caregivers, teachers, and staff answered a “robocall” from the school, they found themselves listening to the principal singing a slightly off-key version of “I Just Called to Say I Love You.” A teacher commented, “She has always been fantastic. The robo call of ‘I Just Called to Say I Love You’ still has me laughing. She’s very encouraging.” It is clear that Principal Gomez’s compassion and concern came through to her community and strengthened it.

Classroom Community-Strengthening

Only one question on our teacher questionnaire received a universal response. When we asked them what they missed most about pre-pandemic teaching, every single response centered on daily face-to-face interactions with kids. Having spent our entire careers working alongside teachers, we did not find this response surprising, but we do feel it is important to contextualize findings from the study. One teacher said she most missed: “Laughter, silly jokes in the classroom. Conversations that organically arise due to what’s on a student’s mind.” While these kinds of interactions might be impossible to completely replicate, we focused on what this campus did to try and create connected experiences with learners in virtual settings. Learning was always viewed as a social process (Wenger, 1998), with these moments between community members integral to learning, rather than separate from standards and goals. In the same way this campus did not try to replicate the hours of face-to-face learning on campus via online instruction, they initiated classroom community-strengthening activities in unique formats.

At the same time, caregivers and students were also clear about what they missed most about school. One parent, whose son is an only child, cried as she explained:

He cried a lot for his friends. He expressed a lot of fears that he would never see certain students again because they would end up moving away
before third grade started, which happens every year. There’s always someone who leaves, just statistically. So, he knew he would never get to tell them goodbye. He missed recess. He expressed missing playtime and talking time and lunch with other kids. He expressed just this fear that he would forget their names and they would forget his name and that no one would remember each other and that he would never see them again, because it did go on the entire year. We missed a third of the school year. So, he was very lonely.

All of the caregivers interviewed and who answered the questionnaire pointed to missing others as a gap in classroom learning. When asked in an interview about what has been the hardest thing about the pandemic spring, every student interviewed offered a comment like: “Not seeing teachers and friends.” Another parent stated:

Her biggest thing about not going back to school is her friends. She loves her friends. She’s gonna miss her friends. She’s very social so, I would have to definitely figure out how we would fill that gap because we would have to have a way for her to interact with other kids her age. And that’s been the weird thing about this crisis schooling that’s sort of like homeschooling is it’s not like homeschooling in the fact that like, I don’t have places and co-ops and libraries and things to take my kids to be with other kids to see that if that type of homeschool or un-school model would even work for us because that’s what those families do.

This quotation brings up an important point about the extreme isolation students were experiencing compared to the social nature of the regular school day. This crisis included a local lockdown, with students unable to see their school friends outside of school, unless it was done on a virtual platform.

When considering what helped bridge the loneliness or what we began to call the “interaction gap” felt by teachers and students, the most common response throughout the data was about the grade-level Zoom calls. Mountainview used Zoom to engage students and give them social time with their friends, rather than to deliver hours of direct instruction. While teachers were available via Zoom, and had office hours in addition to video lessons, Zoom was used primarily for helping students interact with their teachers and friends. Third grade had a Zoom talent show, and teachers from a variety of grades would send their students running around their houses on scavenger hunts, looking for objects to share, or designating days for students to show their pets or other prized possessions. Students mentioned they appreciated the opportunities to see their classmates and teachers. Many caregivers thought they were a little “rowdy,” with one parent stating: “I mean, like a bunch of second graders on a Zoom call trying to talk to each other?…I mean they’re all yelling on Zoom. It was just kind of ridiculous.” However, as another parent said: “I think what sparked joy was listening to their Zoom calls because it’s hilarious listen to eight-year olds talk on a Zoom call.” So, what might seem rowdy and chaotic to a parent was just the right amount of chaos for many kids and their caregivers.
Characteristics of Community-Strengthening Literacies

There were some characteristics of the community-strengthening literacies we observed to be particularly effective in crisis response. While we cannot focus on every aspect of this campus’s response, we do want to highlight that the literacies used to communicate effectively to throughout the CoP were continuous and consistent.

Continuous Communication

Prior to her death, the assistant principal was responsible for all of the one-way communication between the school and families. Every Sunday night there was a recorded phone call that parents received, in addition to other written correspondence that came regularly from her office. When she passed, that responsibility was added to Principal Gomez’s plate. Communication seemed to be remarkably regular, almost in real-time, from the district to the campuses, and then she was careful to communicate with her staff and families/caregivers. She called it “over-communicating,” and said it was her personal goal over the 15 weeks of the pandemic spring. She explained:

That was always my mindset because in a crisis you want to be clear. You want to have clarity and you want to give your stakeholders the information they need to make sense of it and to reassure them that everything’s okay.

Principal Gomez quickly developed routines and tools for disseminating information. She continued:

I would decipher that information (coming from the district) and then I would make a YouTube one-way video for my staff every single day so recapping what’s going on, what the district is saying always with a positive spin to reassure them this is what’s coming. And then I would send that out usually around 3:00 every afternoon. And then the next morning at 10:00 every day I had a Zoom call with my staff. If they wanted to pop on, they could. We would just connect and do team builders. But then also they could ask me follow-up questions from my one-way daily update video from the day before. But that really helped close that feedback loop and it was perfect. My teachers always felt connected. They always felt informed. (Principal Interview)

She was also quick to ensure parents received needed information, but she felt the need to explain it differently: “…being able to decipher that information in a way that makes sense for my parents… And then being able to articulate that to them before they had to ask for it, you know, because by the time they have to ask for the information, you’re trying to put out 1,000
It was clear that she learned quickly about the immediacy of communication, and acknowledged the need to make sense of information and share quickly (“being able to articulate that to them before they had to ask for it”), not only because it is what her community needed, but because it ultimately helped her workload by not becoming “fires” she would have to put out. Teachers responded positively to her over-communicating and so did parents. One teacher said: “She was very in tune to her staff and community.” Parents learned to sift through the information they needed and to recognize that tools underutilized by them might be effective for other families. One parent mentioned: “I think they did a really great job, but it was a little bit too much all of the Fun Fridays…but maybe there’s other kids that needed the more emotional thing.” This give and take via the CoP was important during early crisis management piece.

**Consistent Communication**

In addition to being continuous, communication throughout the CoP was consistent in delivery and most importantly, in message. Caregivers spoke about a de-emphasis on grades and cited the district’s pass/fail policy as an example. Some found this positive and some found it harmed their students’ motivation. One parent was “kinda surprised” that there wasn’t more accountability from RISD; “…it felt kind of fruitless in the sense that they were doing all the work, and then knowing they really didn’t have to do it, and they were going to pass.” However, the deemphasis on grades was a consistent message from the district, to the campuses, and from the principal to the teachers and families.

Teachers and the principal spoke about the campus message of “grace over grades.” One teacher commented: “My district’s focus on the safety and comfort of the students and staff over the concern of budget and work was such a blessing. We constantly received the message of ‘grace over grades’ throughout.” At the campus level, in addition to the message about grace, there was consistency in the message that it was difficult, but that no one was in it alone. The principal regularly told her staff: “We can do hard things.” She explained:

I love what I do. It’s my passion and helping them—helping my teachers and my kids and my parents really does bring me joy even if it’s working like a maniac. And I know I couldn’t sustain this forever but I was like you can do hard things. That’s what I tell my teachers all the time. We can do hard things. We can do hard things and I was like we can do hard things for 13 weeks and we’re going to be okay. It’s not going to last forever or at least we’re going to have a break if it starts again.

Students were included in this message as well. The campus worked to empower them through the challenges on Facebook Live, reminding them that they could have
an impact on a variety of people currently serving during the pandemic, including essential workers, healthcare heroes, and first responders. One student said that Principal Gomez “did the challenges and stuff to try and keep us entertained.” While grades might have been suspended, learning was not, and the campus clearly worked to meet socioemotional needs of students consistently and with clarity.

**Challenge of Community-Strengthening Literacies: Reaching Vulnerable Students**

Literacies, as communication and instructional tools, even when varied, do not reach all members of a community. Principal, parents, and teachers all mentioned the particular challenge of reaching the most vulnerable students and parents in a crisis. The best communication plan in the world, much less one developed quickly in crisis, can still not reach everyone. Communication is two-way. Those communication opportunities might exist, but homes dealing with crisis in a variety of ways cannot be guaranteed to interact. Principal Gomez spoke about the challenges of instruction during the pandemic:

I would say the instructional piece was a little bit harder for me just because I couldn’t always see like—it’s different when you walk in a classroom. You can see the kids. You can see what they know. You can see what they don’t know. You can hear it through how they respond. And so when they’re online, you don’t know. Are they really getting the concept? Are their parents doing it for them?

She also spoke of the heartbreak of not being able to contact some students at all: “And then the ones that aren’t like we would spend hours and hours every week calling, calling, calling our kids that weren’t connected and that was heartbreaking, too.” While this is a somewhat predictable challenge, this school grappled with the trying to connect with students and not always succeeding. While our study does not have data on the demographics of students who were engaging regularly during the spring crisis semester, K-12 literature indicates with high probability that it is the most vulnerable students on any given campus (Garcia & Weiss, 2020). Even with technology in hand, platforms up and running, and teachers and staff engaged, there are still missing parts to engaging all students via online learning. There are no clear-cut plans for reaching vulnerable students in a crisis, and it is something that both needs to be wrestled with now and placed at the forefront of every future pandemic plan.

**Study Limitations**

One challenge for research and a limitation to this study is that we were limited to the people who opted into this research. Without any face-to-face interaction in lockdown, all “asks” for participants took place in the virtual space, as well as all participation. As a result, the students and caregivers who agreed to participate were already engaging with the school in some way; they saw the call to participate in their emails or on the school’s social media pages. Research on the most vulnerable populations and their particular needs is a vital component to future crisis responses, as is finding ways to encourage their participation.
Implications

Mountainview Elementary is an urban emergent school case study, and an in-depth look at their crisis response can help provide transferable lessons to other schools as educators plan ahead to future crises. We cannot forget to look at the early responses, the moments now frozen in the past, and locate successes and struggles that will help in the future. We return to our original research questions in order to emphasize particular implications for the field.

Learning from the Emergency Remote Pivot

Our first question was: What can we learn from one elementary school’s emergency remote pivot that can help educators with future crisis responses? It is important to reiterate that this campus started the pandemic with enough available devices to put one in the hands of every student intentionally and immediately. Countless districts did not start their emergency remote pivot with the most necessary of tools—a device for every student. We will address device access, training, and related research questions in a separate paper with different research questions. In addition to foundational preparedness, there were foundational practices on this campus, meant to strengthen the CoP, with particular attention paid to the socioemotional aspects of learning that were not abandoned in the shift to emergency remote learning. The Mountainview community made meeting the socioemotional needs of students (and staff via the principal) a core principle of their community, and it showed. Ensuring students and staff were seen and heard was instrumental to their togetherness. Emphasizing grace over grades, even if temporary, allowed students and caregivers as well as their staff the needed time to focus on what was most important at that time: their health and well-being. While education systems recognize the importance of socioemotional needs, it is imperative that ongoing training be provided for both practicing and future teachers (as well as teacher educators) on ways to not only build and foster community in their classrooms but make it part of the school’s culture, especially in times of crisis.

The technological divide (Dolan, 2016) is as relevant as it ever has been. From device access to other access issues (Valadez & Duran, 2007) that impact students and caregivers, a focus on the digital divide is mandatory and urgent. Students need practice in learning via technology, not just using it as a social tool (Leu et al., 2015). Caregivers and school leaders need it for more than just meeting learning needs, they need to learn it as social tool, used between school and home, to build and foster community. While COVID-19 may have taken us by surprise, we have learned that health crises are, unfortunately, unavoidable. Exploring the uses of available tools as well as training our teachers, staff, students and parents cannot wait. Likewise, schools should aim to provide opportunities for caregivers to also learn how their children are using these resources as part of their schooling and to actively engage with the technologies themselves. Research, while clearly valuable to understanding digital literacies in the past, needs to be applied in new and urgent ways to emergency remote schooling plans. The field would benefit from studies.
highlighting how schools used the tools and resources they had in non-conventional ways to support teachers and students, creating a “toolbox” of alternatives. There is a need for a paradigm shift when considering the use of digital literacies during crises. Since we collected these data, locally we have seen a backlash against digital tools in the classroom, as well as on our university campus. There has been little focus on studying what worked for students and families; instead there is a clear desire to quickly return to the “old normal.” While largely anecdotal, we find this concerning and wonder at the wisdom of ignoring opportunities to shift, marry perspectives, and plan ahead for any needed remote pivots.

Digital literacies, in all their variety, require practice, and communities need to be able to rely on these tools in crises for content delivery as well as ongoing communication. In the future, in addition to having a crisis technology platform adopted, districts must consider specific ways to create safe spaces that allow students and teachers to learn how to use these tools in low-stakes environments. While much of the technology literature highlights teacher-training on platforms for successful virtual learning (Woodcock et al., 2015), teachers, students, and caregivers should all be familiar with the technologies a district would use, both for teaching and learning as well as socioemotional connection. Simply training teachers on a platform is not enough (Dolan, 2016). Teachers need to be able to actively engage with mandatory technologies prior to a crisis, making the pivot to online learning more seamless. Reactive, rather than proactive responses cause an additional burden and we run the risk of blaming technology, the tool, rather than a lack of preparedness or forethought.

Additionally, students and caregivers also need to be equally familiar with the technologies to allow for rapid and successful transitions online. Allowing for low-stakes opportunities for caregivers to learn platforms on devices provided by the district is imperative. The assumption that digital natives and their families are comfortable using technologies for full-time learning and communicating, just because technologies are ubiquitous, is a dangerous one (Garcia & Weiss, 2020; Leu et al., 2015). We need to move beyond this basic argument. The literacies in a CoP are imperative to communication, and in this instance, this tool becomes vital when considering academic instruction and engagement. While research in digital literacies often focuses on student learning and teacher training for success in virtual learning, considering caregiver needs in emergency remote schooling is now a necessity. Meanwhile, we need to maintain the focus on equity and access (Dolan, 2016) scholars have long argued for.

**Responses to the Emergency Remote Pivot**

Our second research question was: How did community stakeholders react to the school’s changes forced by the COVID-19 pandemic? The responses were largely positive to RISD’s focus on pass/fail in the short-term spring shutdown gave the campus permission to focus on “grace over grades.” This was a message that was not without its critics, but that resonated all the way from Central Office to students in schools. More research to examine the impact on families, caregivers, teachers
and staff across districts and states will be necessary in the coming months. It will be imperative to rely on data and tease out what worked, without assumption, and both large-scale quantitative and context-specific case studies will offer insight.

Equally important is the finding that digital literacies are not only imperative to classroom learning, but to the socioemotional aspects of community in a crisis. Students were lonely for their teachers and teachers were lonely for their students. Caregivers needed to know what was happening at the school and the school needed to communicate with them. Every element of community interaction was interwoven in digital literacies. These kinds of literacy practices are vital and we must consider the ways communities of learners can practice ahead of a crisis, learning to effectively communicate back and forth, and coming to see communication as more than a one-way delivery system. This study indicates the importance of a district-level plan and of district leadership. However, particularly in an urban district like RISD, where students are allowed to transfer and move about the district, campus-level needs should be regularly assessed by the members of those communities, and digital literacies could be utilized in ongoing assessment, as well as tools to practice within the community.

The pivot point brought about by the pandemic is one where the educational community should focus on the characteristics we want students to display when faced with a crisis (Garcia & Weiss, 2020). Decades of focusing on skills to be assessed in standardized ways, with a cursory focus on civics lessons, begs the question: What is the school’s responsibility in building community in a way that fosters flexibility and perseverance in students? How do we want them to behave in times of crisis, and have we explicitly taught them that? How can we implement curriculum that allows for struggle, resilience and depth while teaching students to read and write, while not ignoring digital literacies? These are questions that need to be taken up in further research as well as in practice. Likely, students in urban schools can weather hardship, and this is the criticism of current curricula focused on resilience (Condly, 2006). Yet students will need opportunities to learn to apply their considerable skills to crises, particularly those that close school buildings, often a location of myriad resources for vulnerable students. Schools, as well as researchers, should think about low-stakes opportunities to stretch, strengthen and grow, preparing our students to face adversity both in and outside of the school walls in both classroom and socioemotional learning.

**Conclusion**

A student participant told us: “I want the world to know I want to go to school!” His brother chimed in: “There were days at school, yes, I wanted to be home. But not this much.” Thinking about all students receive—academically as well as socioemotionally—from participating in school, makes the need for a future crisis plan more complex. When schools are forced to close their buildings, and there are necessary pivot points to online instruction, there needs to be an alternative plan that is effective for school communities. Because no two schools are alike, contingency plans need to be created based off the needs of the schools—their students, families,
and staff—before a crisis happens again. We argue school administrators need to spend time listening to their stakeholders; they need to know what worked, what did not, and what could be done better. Educational researchers can help the field, as a whole, better understand and add a broader context to these individual cases.

While we recognize Mountainview is only one school community story, it has proven to be valuable in shaping our understanding of planning for future crisis responses, particularly as we look at ways to better prepare our future teachers. Undoubtedly there are other Mountainviews across the country that were able to layer the socioemotional aspects of crisis response with the educational needs of their students and caregivers. These qualitative stories can help offer suggestions but also assist campuses in individualizing their responses for their communities. This data picture painted by this CoP as they navigated a unique, immediate crisis gives a starting point. Schools can begin cultivating communities that can withstand an online pivot—in terms of academics as well as socioemotional learning. While, as a nation, we might have been surprised by the needs foisted on us by the pandemic, it is imperative that we begin planning ahead of future crises—with plans for utilizing digital literacies and strengthening our learning communities.

Declarations

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

References

Assuncao Flores, M., & Gago, M. (2020). Teacher education in times of COVID-19 pandemic in Portugal: National, institutional and pedagogical responses. *Journal of Education for Teaching, 46*, 507–516. https://doi.org/10.1080/02607476.2020.1799709

Beard, K. S., & Thomson, S. I. (2021). Breaking barriers: District and school administrators engaging family, and community as a key determinant of student success. *Urban Education*. https://doi.org/10.1177/0042085920987284 (Online first).

Borup, J., West, R. E., Graham, C. R., & Davies, R. S. (2014). The adolescent community of engagement framework: A lens for research on K-12 online learning. *Journal of Technology and Teacher Education, 22*(1), 107–129.

Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to Coronavirus pandemic. *Asian Journal of Distance Education, 15*(2), 1–6.

Cochran-Smith, M., & Zeichner, K. (2005). *Studying teacher education: The report of the AERA panel on research and teacher education*. Lawrence Erlbaum.

Condly, S. J. (2006). Resilience in children: A review of literature with implications for education. *Urban Education, 41*(3), 211–236. https://doi.org/10.1177/0042085906287902

Denzin, N. K. (1978). *Sociological methods: A source book* (2nd ed.). Mcgraw-Hill.

Dolan, J. E. (2016). Splicing the divide: A review of research on the evolving digital divide among K-12 students. *Journal of Research on Technology in Education, 48*(1), 16–37.

Fontana, A., & Frey, J. H. (2000). The interview: From structured questions to negotiated text. In Y. S. Lincoln & N. K. Denzin (Eds.), *Handbook of qualitative research* (2nd ed., pp. 645–672). Sage.

Fuller, A., Hodkinson, H., Hodkinson, P., & Unwin, L. (2005). Learning as peripheral participation in communities of practice: A reassessment of key concepts in workplace learning. *British Educational Research Journal, 31*(1), 49–68.
Garbe, A., Ogurlu, U., Logan, N., & Cook, P. (2020). COVID-19 and remote learning: Experiences of parents with children during the pandemic. *American Journal of Qualitative Research, 4*(3), 45–65.

Garcia, E., Weiss, E., & Engdahl, L. (2020). *Access to online learning amid coronavirus is far from universal and children who are poor suffer from a digital divide.* [Working Economics Blog]. Economic Policy Institute. https://www.epi.org/blog/access-to-online-learning-amid-coronavirus-and-digital-divide/

Garcia, E., & Weiss, E. (2020). *COVID-19 and student performance, equity, and U.S. education policy: Lessons from pre-pandemic research to inform relief, recovery, and rebuilding.* [Research Report]. Economic Policy Institute. https://files.epi.org/pdf/205622.pdf.

Gee, J. P., Hall, G., & Lankshear, C. (1996). The new work order: Behind the language of the new capitalism. St. Leonards, Allen, & Unwin.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory.* Aldine.

Hammerness, K., & Matsko, K. K. (2012). When context has context: A case study of new teacher induction in the University of Chicago’s urban teacher education program. *Urban Education, 48*(4), 557–584.

Henri, F., & Pudelko, B. (2003). Understanding and analysing activity and learning in virtual communities. *Journal of Computer Assisted Learning, 19*(4), 474–487.

Herrington, J., & Kervin, L. (2007). Authentic learning supported by technology: Ten suggestions and guidelines for integration in classrooms. *Educational Media International, 44*(3), 219–236. https://doi.org/10.1080/09523980701491666

Jimenez-Silva, M., & Olson, K. (2012). A community of practice in teacher education: Insights and perceptions. *International Journal of Teaching and Learning in Higher Education, 24*(3), 335–348.

Karchmer-Klein, R., & Shinas, V. H. (2012). Guiding principles for supporting new literacies in your classroom. *The Reading Teacher, 62*(5), 288–293.

Moll, L. C. (2000). Inspired by Vygotsky: Ethnographic experiments in education. In C. Lee & P. Smagorinsky (Eds.), *Vygotskian perspectives on literacy research: Constructing meaning through collaborative inquiry* (pp. 256–268). Cambridge University Press.

Lave, J., & Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity.* Cambridge University Press.

Leu, D. J., Forzani, E., Rhoads, C., Maykel, C., Kennedy, C., & Timbrell, N. (2015). The new literacies of online research and comprehension: Rethinking the achievement gap. *Reading Research Quarterly, 50*(1), 37–59.

Milner, R. (2012). But what is urban education? *Urban Education, 47*(3), 556–561. https://doi.org/10.1177/0042085912447516

Moldovan, A. M., Capraro, R. M., & Capraro, M. M. (2021). Navigating (and disrupting) the digital divide: Urban teachers’ perspectives on secondary mathematics instruction during COVID-19. *The Urban Review.* https://doi.org/10.1007/s11256-021-00611-4

Murphy, E., & Rodriguez-Manzanares, M. A. (2009). Teachers’ perspectives on motivation in high school distance education. *Journal of Distance Education, 23*(3), 1–24.

Nichols, T. P., & Johnston, K. (2020). Rethinking availability in multimodal composing: Frictions in digital design. *Journal of Adolescent and Adult Literacy, 64*(3), 259–270.

Pew Research Center (2020). Most parents of K-12 students learning online worry about their falling behind. Retrieved from https://www.pewsocialtrends.org/2020/10/29/most-parents-of-k-12-students-learning-online-worry-about-them-falling-behind/ Reisch, J., Buttimer, C. J., Fang, A., Hillaire, G., Hirsch, K., Larke, L., Littenberg-Tobias, J., Moussapour, R., Napier, A., Thompson, M., & Slama, R. (2020). *Remote learning guidance from state education agencies during the COVID-19 pandemic: A first look.* 10.35542/osf.io/437e2: MIT Teaching Systems Lab.

Schaffer, C. L., White, M., & Brown, C. M. (2018). A tale of three cities: Defining urban schools within the context of varied geographic areas. *Education and Urban Society, 50*(6), 507–523. https://doi.org/10.1177/0013124517713605

Skerret, A., Warrington, A., & Williamson, T. (2018). Generative principles for professional learning for equity-oriented urban English teachers. *English Education, 50*(2), 116–146.

Smith, S. U., Hayes, S., & Shea, P. (2017). A critical review of the use of Wenger’s Community of Practice (CoP) Theoretical Framework in online and blended learning research, 2000–2014. *Online Learning, 21*(1), 209–237.
Sutton, S. R. (2011). The preservice technology training experiences of novice teachers. *Journal of Digital Learning in Teacher Education, 28*(1), 39–47. https://doi.org/10.1080/21532974.2011.10784678

UNESCO. (2020). Reopening schools: When, where, and how? Retrieved from https://en.unesco.org/news/reopening-schools-when-where-and-how.

Valadez, J., & Duran, R. (2007). Redefining the digital divide: Beyond access to computers and the Internet. *High School Journal, 90*(3), 31–44.

Wenger, E. (1998). Communities of practice: Learning, meaning, and identity. *Cambridge University Press.* https://doi.org/10.1017/CBO9780511803932

Woodcock, S., Sisco, A., & Eady, M. (2015). The learning experience: Training teachers using Synchronous environments. *Journal of Educational Research and Practice, 5*(1), 21–34. https://doi.org/10.5590/JERAP.2015.05.1.02

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Harvard University Press.

Yin, R. K. (2009). *Case study research: Design and methods.* Sage.

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