Factors Affecting Online Learning During the COVID-19 Pandemic: The Lived Experiences of Parents, Teachers, and Administrators in U.S. High-Needs K-12 Schools

HEEJUNG AN

William Paterson University of New Jersey anh2@wpunj.edu

GERALDINE MONGILLO

William Paterson University of New Jersey MongilloG@wpunj.edu

WOONHEE SUNG

The University of Texas at Tyler wsung@uttyler.edu

DAVID FUENTES

William Paterson University of New Jersey fuentesd2@wpunj.edu

Employing phenomenology as a methodological framework, this study sought to capture and understand, from a first-person point of view, what parents, teachers, and administrators in U.S. high-needs K-12 schools experienced related to online learning during the COVID-19 pandemic. Individual interviews were conducted on a video conferencing platform to collect in-depth information about participants' lived experiences related to online learning necessitated by the pandemic. Findings from the phenomenological data analysis highlight four factors that may need to be taken into consideration when planning, designing, and implementing sustainable online learning in high-needs schools: (a) accessibility: physical and digital; (b) usability: functional use of technology and instructional technology; (c) wellness: physical and mental, social, and emotional; and (d) support: home, school, and peer. These findings contribute to the knowledge base about K-12 online learning by sharing lived experiences and adding to the literature on online education in high-needs schools.

Keywords: COVID-19, digital divide, digital equity, highneeds schools, K-12 online learning, lived experiences, phenomenology

INTRODUCTION

The benefits of online learning, such as unlimited geographical and time boundaries, have attracted the attention of adult learners in higher education (Geith & Vignare, 2008), whereas most K-12 schools have been slow to adopt this approach or even blended learning as a primary delivery format. Thus, while virtual K-12 schools such as the Florida Virtual School (Peterson, 2010) have existed since the late 1990s, these schools have mostly been limited to students with specific needs, such as students with disabilities, gifted students, pregnant students, at-risk youth, and students who were victims of bullying (Bonk, 2009).

In 2020, the onset of the COVID-19 pandemic necessitated that most K-12 public schools in the United States pivot their course offerings to online platforms, with little or no previous experience or readiness. This unprecedented situation has brought to light various problems that have otherwise existed below the surface for many years. Low-income, high-needs schools¹, in particular, have suffered from numerous pre-existing problems such as poverty, limited technologies and resources, lack of digital literacy, language barriers, lack of support, and lack of skilled teachers, in addition to unique sociocultural and sociopolitical factors (e.g., Banks, 2015; Boyd & Shouse, 1997; Cochran-Smith et al., 2004; Ladson-Billings, 1999). The need to abruptly shift to online instruction exacerbated these longstanding problems, including the high demand for technological tools, hotspots for Internet wireless connections, and rapid training of educators with no previous experience with online instruction.

Studies conducted during the COVID-19 pandemic have shed light on the challenges and opportunities related to online learning in K-12 settings for teachers and parents (An et al., 2021; Aslan et al., 2022; Fauzi & Khusuma, 2020; Miller, 2021; Zhang, 2021), and the general public has caught revealing glimpses of the inequities and negative impacts on parent and student physical and mental health, learning processes, and educational outcomes; however, a more in-depth understanding is needed, especially in the context of high-needs schools in the United States.

Thus, this study strived to capture the phenomena, as defined by the lived experiences of parents, teachers, and administrators, in U.S. high-needs schools, through in-depth interviews to identify the successes, challenges, problems, and opportunities they faced pertaining to online learning during the COVID-19 pandemic. Understanding the lived experiences of these participants as they unfolded while teaching, learning, monitoring and supporting children, and administering in an online environment offers new insights that further our thinking, allow us to better understand the unique needs in high-needs schools, and fill gaps in the literature. It is important to note that the scope of our study allowed for experiences related to general education students.

The two research questions guiding the inquiry were as follows.

- RQ1. What were the experiences of parents, teachers, and administrators in high-needs communities when shifting to online learning during the COVID-19 pandemic?
- RQ2. What factors affected online learning in high-needs K-12 schools during the COVID-19 pandemic?

METHODOLOGICAL FRAMEWORK

This study employed phenomenology as a methodological approach in an effort to understand, from the first-person point of view, what the participants—parents, teachers, and administrators—in high-needs schools experienced during the COVID-19 pandemic. Phenomenologists (Heidegger, 1982; Husserl, 1970) introduced the study of structures of experience, or what they referred to as "phenomena." Using the lens of phenomenology allows us to capture the essence of experiences through the process of meaning-making or creating understanding.

Phenomenology was selected as the methodology for the study due to its ability to shed light on the conscious experiences of participants from a subjective or first-person point of view. As such, this approach allowed us to study participants' awareness and intentionality while they were immersed within an experience, or a phenomenon. We defined the "phenomena" as the lived experiences of the participants (parents, teachers, and administrators) who had to shift to remote instruction as a pandemic response without any other options.

In other methodologies, researchers rely upon what is observed. In phenomenology, on the other hand, researchers rely upon the reflections of the participants as they have experienced the given phenomenon. We hold this unit of analysis, a first-hand, primary kind of experience, to be of great value as it allows us to study the "structures of consciousness" (Husserl, 2001) of participants' experiences during an event or phenomenon. This kind of analysis yields knowledge produced directly from the "lived experiences" (Van Manen, 2014) of participants and does not rely upon the interpretation of observed phenomena, thus offering closer proximity between the subject and the phenomenon. In interpreting the experiences of the participants, we employed "hermeneutics" (Heidegger, 1982), a process that Heidegger described as "the art of interpretation in context, especially social and linguistic contexts" (p. 2). Hermeneutics allows for the triangulation of participants' experiences and language used to describe a phenomenon with the sociocultural, sociopolitical, and linguistic context(s) guiding their lived experiences.

Focusing on participants' first-hand experiences while reflecting upon the broader societal and linguistic contexts(s) offers a unique ability to disclose participants' often-hidden contexts, experiences, motivations, thinking, and ways of being and knowing in the moment while they are experiencing a given phenomenon. Unveiling these structures and contexts, in turn, enables the creation of new knowledge and understanding that allows for closer alignment between, in this case, the given phenomenon in high-needs schools and participants' actual experiences in their online teaching and learning during the pandemic.

PROBLEMS AND CHALLENGES IN U.S. HIGH-NEEDS SCHOOLS

High-needs school districts in the United States have suffered from myriad challenges long before the COVID-19 pandemic struck. For example, research shows that high-needs schools have faced inadequate funding (Knoblauch & Chase, 2015; Noguera & Akom, 2000), which has exponential negative impacts on children's ability to learn. Decreased school funding has also contributed to teachers' perceptions that children are defined by their deficiencies rather than the assets they bring to the classroom (Delpit, 1995). Further, funding deficiencies often lead to decreased trust between teachers, schools, and parents due to a lack of the resources needed to communicate effectively, thus creating cultural and linguistic barriers between schools and the families they serve. Finally, a lack of resources contributes to the well-documented high teacher attrition rates that characterize high-needs schools (Cochran-Smith, 2006).

Lack of funding also exacerbates the digital divide often found in highneeds schools (Knoblauch & Chase, 2015; Kormos, 2018)—"the inequality in access to technology that exists between communities due to regional and demographic differences, particularly socio-economic groups" (Tustin, 2010, p. 4). Thus, suburban and rural schools in high-poverty areas face a severe lack of digital resources and Internet connections as well as limited bandwidth, which, among other things, prevents teachers from accessing instructional materials such as videos (Redding & Walberg, 2012). Sadly, these very challenges are in direct contrast to the goal of e-learning in K-12 education, otherwise viewed as a strategy for achieving education reform by providing equal access and opportunity for all learners, especially in small, under-resourced urban and rural schools (Smith et al., 2005).

In addition, how technology is utilized in classrooms differs between low-income urban and suburban schools (Kormos, 2018). Teachers in urban schools tend to employ technology for drill and practice rather than higher-order thinking skills or innovative teaching strategies (Harris, 2016).

Further, they are less likely to receive adequate professional development and training and to possess the skills and knowledge needed to utilize technology for their teaching practices (Cosby et al., 2017). To make matters worse, teachers in low-income areas often work within highly bureaucratic structures, which can impede the integration and consistency of technology usage (Delpit, 2012; Michie, 2005, as cited in Kormos, 2018).

It has long been established that the presence of well-trained teachers has a greater influence on student learning than almost any other school-based factor (e.g., Darling-Hammond, 2000). However, as noted by Banks (2015), more than 60% of teachers report feeling unprepared for the demands of the classroom, particularly when it comes to teaching children from cultural backgrounds different from their own. Nowhere are the problems of inadequately prepared teachers felt more acutely than in the nation's urban schools and in school districts with a high percentage of minority populations. For example, to overcome the barriers to online learning encountered by English Language Learners (ELLs) in high-needs schools due to a limited level of academic English (Paraiso, 2010), schools need highly skilled and experienced teachers who possess effective teaching strategies, including the use of using appropriate technology-based resources. Again, high-poverty urban and rural schools are most in need of highly qualified teachers, yet suffer from severe teacher shortages (Gillam, 2019).

This study attempted to understand the complex dynamics existing in high-needs urban and rural schools by directly listening to key stakeholders, parents, teachers, and administrators during the emergent remote teaching time period during the COVID-19 pandemic.

ONLINE LEARNING IN K-12 SETTINGS DURING THE COVID-19 PANDEMIC

During the COVID-19 pandemic, various studies have been conducted to better understand the dynamics of online learning in K-12 settings in an attempt to improve current practices. For example, Aslan et al. (2022) interviewed 15 early childhood teachers in U.S. public and private schools to find out how they implemented online learning during the pandemic and what challenges they encountered. Primary challenges in relation to students included (a) low engagement, (b) lack of socialization/interaction, and (c) lack of hands-on activities/exploration/play. Primary challenges for teachers were related to (a) monitoring students' progress/behaviors/emotions, (b) lack of experience/support in online learning, and (c) personal and professional life balance.

An et al. (2021) examined the experiences of K-12 teachers in 25 U.S. states during the early stage of COVID-19. Major challenges reported were (a) lack of student participation and engagement, (b) lack of student access

to technology, (c) deterioration in students' wellbeing, (d) no face-to-face interaction, (e) no work-life balance, and (f) having to learn new technology. The lack of student engagement in the online environment was partially attributable to limited parental support. Younger students, in particular, needed parental support for attending online classes and completing homework.

Examining K-12 teachers' experiences with technology integration and online instruction prior to and after the spring of 2020, Webb et al. (2021) found that only 24% of teachers had completed coursework that addressed teaching in an online environment during their teacher preparation programs and, therefore, felt a need for further professional development when having to transition to online teaching during the pandemic. Many of the participants received professional development hours during the start of the pandemic, while others completed hours during the summer and fall in preparation for the following academic year. The data showed no statistical significance in predicting preparedness to teach online based on either the number of college courses or hours completed in professional development. In addition, knowledge and self-efficacy skills were statistically significant prior to and after the spring of 2020. During the pandemic, even though teachers were unprepared for teaching in an online environment, their self-efficacy remained high as they learned new strategies through professional development.

In a macro-level study of 270 teachers in several New Jersey counties, Fancera and Saperstein (2021) found that the sole external school context variable that was positively related to educators' perceptions of preparedness for the COVID-19 school closures was school enrollment, indicating that teachers from counties with larger school enrollments felt more prepared for virtual learning. They also noted that although the correlation coefficient between poverty level and expectation scores showed marginal significance, the participants had high expectations for teaching and learning for their economically disadvantaged students during the virtual learning period.

Further, Hartshorne et al. (2020) identified the "homework gap"—the result of a lack of support at home—as one of the major challenges related to equity in schools. Similarly, another study conducted with elementary school teachers reported that collaboration with parents was one of the main obstacles to effective online learning (Fauzi & Khusuma, 2020). Examining concerns related to parents during the pandemic, Aslan et al. (2022) found that a lack of engagement and technology use and difficulty following up on their children's schedule of activities were related to limited parental support at home.

Several studies have focused on the role of parents in meeting students' online learning needs. For example, Abuhammad (2020) reviewed Facebook postings to explore the perceptions of parents toward distance learning during the COVID-19 pandemic in Jordan. An analysis of 238 posts and threads showed that parents reported an inability to offer support to help their children, a lack of technical expertise, inadequate communication, and a lack of qualifications.

Additionally, Zhang (2021) investigated 741 parents' attitudes toward online education in China through a survey consisting of open-ended questions. Findings showed that parents held pessimistic attitudes towards the quality of online teaching and argued that online teaching-learning can be a formidable challenge, especially for students with poor self-regulation and learning autonomy.

In another study, Budhrani et al. (2021) analyzed parents' roles and activities while balancing the duties of working, parenting, and assisting children with remote learning. The authors found that parents demonstrated a positive mindset amidst having to balance multiple academic roles for their children. They deemed the role of "supporting learning" as most important and central to the success of the other roles they had to fulfill.

Overall, findings from recent studies about issues related to online learning during the COVID-19 pandemic are consistent with those of studies conducted prior to the COVID-19 pandemic on themes such as the digital divide, motivation, and engagement challenges, and the challenges of delivering high-quality instruction. However, there is still a paucity of research addressing administrators' perspectives on online learning and high-needs school populations during the COVID-19 pandemic.

METHODS

Participants

This study used a convenience sampling approach to solicit participants to be interviewed. The benefits of conducting interviews include the ability to collect in-depth information and the flexibility to ask specific questions to deeply understand participants' experiences (Brinkmann & Kvale, 2014). After IRB approval was obtained, a recruitment email was sent to various professional organizations such as American Educational Research Association (AERA), Society for Information Technology and Teacher Education (SITE), and College and University Faculty Assembly (CUFA). The same email was also sent out to the Professional Development Schools affiliated with the first author's institution. Once it was determined that potential participants met the criteria for participation (teaching in Grades 4-12 in a high-needs school, being a parent, or working as an administrator), an inter-

view was scheduled. Eight parents, twelve teachers, and eight administrators from high-needs schools participated in the interview process. Table 1 shows participant demographics and background information.

Parents

As illustrated in Table 1, among the eight participating parents from various states, five ranged in age from 40 to 49 years old, two were between 30 and 39 years old, and one was 50-59 years old. All were females. Five were White, one was African American, and two were multi-racial. Four held master's degrees and four held bachelor's degrees.

Teachers

The twelve teachers ranged in age from 30 to 69 years old. There were eight females and four males, with six being White, two Asian, two Hispanic, and two multi-racial. The highest degrees reported were master's degrees, with nine. Two participants had bachelor's degrees, and one had a doctorate. They all worked in public schools in the states of California, Louisiana, Maryland, and New Jersey (6 in urban areas, 3 in rural areas, and 3 in suburban areas). Six were high school teachers, three middle school teachers, and three elementary teachers; their work experience as teachers varied from 4 to more than 15 years. The subject matter they taught also varied.

Administrators

The eight participating administrators ranged in age from 30 to 69 years old; four were males and four were females. Seven were White and one was African American. Five held master's degrees and three held doctoral degrees. They were all from New Jersey. Their experiences as administrators varied greatly. One administrator had more than 15 years of experience.

Table 1

Participant Demographic and Background Information

	Parents (N = 8)	Teachers (N = 12)	Administrators (N = 8)	
Age				
30-39	2	4	1	
40-49	5	5	2	
50-59	1	1	4	
60-69	0	2	1	
Gender				
Female	8	8	4	
Male	0	4	4	
Race				
White	5	6	7	
Asian	0	2	0	
Hispanic	0	2	0	
Black	1	0	1	
Multi-racial	2	2	0	
Highest Academic Degree				
Bachelor	4	2	0	
Master	4	9	5	
Doctorate	0	1	3	
State				
NY	1	0	0	
NJ	2	8	8	
CA	0	2		
LA	0	1		
MD	2	1		
TX	1			
OH	1			
KS	1			
Location				
Urban	2	6	4	
Rural	4	3	1	
Suburban	2	3	3	
Grade Level				
Elementary	NA	3	3	
Middle		3	1	
High		6	2	
K-12		0	2	
	Parents (N = 8)	Teachers (N = 12)	Administrators (N = 8)	

Working Years in Current Position		NA			
	0-3 years 4-9 years 10-14 years 15 or more years		0 4 4 4	1 6 0 1	
Subjects		NA			
	Computer Science		2	NA	
	ESL		1		
	History		1		
	Mathematics		1		
	Spanish		1		
	Engineering		1		

Table 1, Continued

Data Collection and Analysis

The first and fourth authors designed the interview questions to elicit participants' perspectives on the (a) success and failure areas when moving to remote instruction; (b) helpful resources they used; (c) concerns that they had for their students/children and teachers/peers; and (d) supports that were lacking that they believed could have helped with the identified issues (see Appendix A for the interview questions).

The first, second, and fourth authors conducted a 60- to 90-minute indepth semi-structured interview via the Zoom video conference program with each participant. Our goal was to understand the participants' perceptions and perspectives (Leedy & Ellis-Ormand, 2018) relating to their experiences working and living in high-needs communities when having to shift to online learning during the COVID-19 pandemic as well as the factors that affected the change. With the participants' permission, the interviews were recorded and then transcribed. In appreciation for their participation, each participant received a \$50 Amazon gift card electronically upon completion of the interview.

Phenomenological analysis procedures (Leedy & Ellis-Ormand, 2018; Morrow et al., 2015) were employed, whereby the first and second authors conducted a systematic examination of the transcribed interviews. Guided by Colaizzi's (1978) descriptive phenomenological method, they worked independently to identify relevant statements and phrases that created salient categories. Two authors then worked together to confirm or disconfirm categories and further reduced the data to what Leedy and Ellis-Ormand (2018) called "meaning units." Next, they compared how each constituency viewed the lived experience and identified common themes within and across accounts. Finally, they reviewed the data again to ensure each meaning category was reflective of each group: parents, teachers, and

administrators.

In order to establish validity, the four authors reviewed the categories. Emerging factors were noted and confirmed or disconfirmed through this recursive review process until finally a "condensed and exhaustive list of just those aspects deemed to be essential to the structure of the phenomenon was compiled" (Morrow et al., 2015, p. 643). The final step included member checks, in which some of the participants were invited to read and comment on the findings.

FINDINGS

Through a phenomenological analysis of the interview data, we uncovered four factors—accessibility, usability, wellness, and support—that affected online learning in high-needs schools during the COVID-19 pandemic. These factors were shared across all three types of participants and are listed in Figure 1 along with the categories under each factor. When these factors were sufficiently present, they facilitated the effectiveness of online learning, but when they were not present, online learning was often fragmented and ineffective. In the following, we provide detailed descriptions of each factor, along with the subcategories that are essential for making online learning successful in high-needs schools.

Figure 1. Factors Affecting Online Learning During the COVID-19



Pandemic

Accessibility

Accessibility included two categories: (a) physical and (b) digital. This finding shows how high-needs schools have been affected by the disparity of basic needs as well as computers and access to a stable Internet connection.

Physical Accessibility

Physical accessibility reveals how basic needs such as food affected online learning. High-needs schools include higher percentages of students eligible for free breakfast and lunch. During the pandemic, this student population often had no other option but to stay home for online learning and, as a result, suffered from a lack of food, leading to a failure to provide for basic needs. As one teacher explained, "Our students and families very much have basic needs. Childcare ... they are latchkey because a lot of our families are working, whether it be in a restaurant, construction ... some of the parents, if they didn't work, our students weren't eating."

Some schools were able to handle this crisis relatively quickly, but many others were not. One administrator said, "When he [superintendent] realized that the kids were hungry, he's like—so the kids were still—I have the chills—the kids that were entitled to free lunch were showing up, there were like five hundred kids lined up to get lunch."

A teacher further explained that some high school students had to seek employment since their parents lost their jobs or were not able to keep working due to COVID-19, so these students were taking online classes while also working, making it difficult, and sometimes preventing, students from attending school or focusing on learning in online environments.

Additionally, many low-income families were living in multifamily housing or at extended family members' homes throughout the pandemic, resulting in cramped and crowded living spaces, thus making learning more difficult due to background noise, a lack of personal space, or necessary equipment, such as a desk or chair. These struggles were often noted by parents and teachers during the interviews. One parent stated, "They didn't have a desk. They did have a bedroom, but they didn't have a dresser." Another parent said, "So much distraction since they're learning in their house with many people in the same room. ... and they didn't have their own desks."

Digital Accessibility

Many students did not have the necessary computers and Internet connections to fully participate in online learning from home, which was an urgent issue for both the schools and the parents. Thus, during the spring of 2020, some schools provided paper packets for parents and children to

pick up and read at home since computers and Internet connections were not always immediately available. Some schools were able to provide computers and wireless hotspots for Internet connections quite quickly through grants or school funds, but others languished, unable to do so until the fall of 2020. An administrator explained, "Our priority was to get technology in the hands of the kids. We got the CARES grant, and we purchased more Chromebooks with the CARES grant."

In many high-needs rural school communities, even if students had Internet connections, they were far too slow for students to be able to benefit from more engaging work such as viewing videos, as noted by Kormos (2018). This tended to make students frustrated, and accordingly, parents also became impatient. One parent said, "Our Wi-Fi was constantly dropping, and when you're nine and you're in the middle of class, and you're a good student, it's the end of the world, and my daughter would come running downstairs hysterically crying."

Usability

The second factor, usability, was also divided into two categories: (a) functional use of technology and (b) instructional use of technology.

Functional Use of Technology

Jonassen et al. (1999) distinguished between learning about technology and learning with technology. In high needs schools, our interviews revealed that for parents, and students, especially elementary students, learning about technology is crucial. More specifically, learning about the functional use of technology, including the operational use of technology, was exceedingly critical for carrying out successful online learning. A parent explained,

That first teacher used Zoom. The second teacher used—uses Google Hangout. Why that is, I don't know, but we've had different issues with both of them, and they haven't had the ... the IT department for the district has yet to figure out why he's having these particular issues. We've gone through four Chromebook changes and three hotspots, you know, so the physical devices and things are still not working.

A teacher noted, "Another negative was the fact that a lot of parents were not aware of how to deal with the computer, with technology, so we had a lot of parents who were very frustrated with themselves and then with their children."

In addition, the ability to manage and organize digital files and navigate

with technology became essential skills for parents, teachers, and students. One administrator noted, "We had a lot of kids being dropped off with elderly grandparents who couldn't manage to navigate with the technology at home."

Many parents also expressed difficulties in navigating computer systems and digital files, which, in turn, had a negative effect on the quality of their children's online learning at home. A parent elaborated,

My son definitely was very anxious, he would even cry if he didn't—you know if the technology wasn't working or he didn't understand. He was not able to find things on computers and navigate Google Classroom to learn the topics that were taught.

As for teachers, with just-in-time training, many teachers learned rather quickly how to use technology for functionality, but still lacked basic foundational knowledge, and thus tended to have difficulty troubleshooting when problems occurred.

Instructional Use of Technology

For administrators and teachers, having knowledge, understanding, and skills related to instructional technology was essential for successful online learning, planning, and teaching. Yet, few administrators had sufficient knowledge and skills to successfully deal with instructional technology. An administrator noted that in his state, there was only one superintendent who understood instructional technology, while others had only a superficial understanding of how to integrate technologies in online learning.

Additionally, the use of web-based programs, e-books, and apps for online teaching and learning became in urgent demand. At the time of the pandemic, many schools were still using more traditional worksheets, analog textbooks, and resources. A parent echoed this fact, "Everything was just worksheet-based without using interactive web-based programs." An administrator acknowledged, "We don't have the money; we're not going to buy other programs."

On the other hand, some high-needs schools were able to implement free web-based programs with rapid and professional development for teachers. A teacher noted, "Desmos was one of those primary sources that we provided a lot of professional development on. Padlet is a great resource in which you can essentially see students' boards."

Most of the schools represented in this study did not provide specific resources for parents. Most notably, even though the schools included students from diverse cultural backgrounds and bilingual and ELLs, bilingual digital resources or tools were not available in most schools or were not ef-

fectively utilized. For example, a parent whose child was a translator for the interview noted, "No information and materials were provided in Arabic."

Many school administrators were aware of this challenge, with one stating, "... not knowing the computers and then not knowing the language [English]. Who's translating it for you, for those materials? We did not have that at the moment, so that was another big problem."

In some schools, there was sometimes a willing teacher who was able to speak in the language that most parents in that school understood. One teacher we interviewed translated resources for parents to use and even dubbed her own voice to video files found on YouTube, to provide the necessary translation. One teacher noted, "Parents sent me a lot of videos such as technical manuals to translate, so I used Screencastify to do a voice-over in Spanish." Some teachers who only spoke English also make an effort to use translation software or apps to communicate with parents in their native language as a means to transfer knowledge, skills, and information more accurately. For example, one teacher noted, "None of the parents speak English. I used Google Translate."

The effort and commitment of such teachers were a major factor that contributed to successful online learning for their students and their parents; yet, the time and effort involved in carrying out such tasks was extreme and unlikely to be feasible for the majority of teachers.

Wellness

The third factor, wellness, showed how the participants' well-being had been affected by the COVID-19 pandemic and the onset of distance learning. We broke down this factor into two categories: (a) physical wellness and (b) mental, social, and emotional wellness.

Physical Wellness

Physical wellness impacted online learners' cognitive and emotional engagement, such as self-regulation, motivation, and attitudes (Pellas, 2014). Most of the teachers and students in this study were not accustomed to teaching and learning in front of computers for 6-8 hours a day prior to CO-VID-19, and the physical demands and fatigue generated by teaching and learning online all day had negative effects on their conduct, effort, attention, and participation in online classrooms.

Some teachers and administrators discovered their own coping strategies such as yoga, regularly scheduled walking times, and seeing a doctor or other medical support, such as a chiropractor. Some parents took their children on bike rides outside more regularly. When students and parents utilized coping strategies to reduce physical and psychological stress, it had a positive effect on teaching and learning online. Two teachers stated,

I rarely sit down during the teaching day and now being at home, being on this computer for long hours, standing still like I do, my body is just not adjusting well. I had shoulder problems—I had tendinitis in my shoulder, which I never had before

I can even tell you physically, I don't know if many teachers – like physically, my body just isn't as good 'cause teaching is a pretty active thing, right? I'm on the ground, up off the ground, I'm walking around, walking the kids to lunch. You know, it's ... I teach standing up.

Mental, Social, and Emotional Wellness

Parents and teachers observed that the children experienced social isolation, mental distress, and emotional depression since they were used to working and interacting with classmates while doing a variety of activities in regular classroom settings. This issue appeared especially critical in the participating high-needs schools, as many students were left alone at home by parents who were essential workers (e.g., truck drivers, dairy farmers, restaurant workers, and fruit packaging workers). To make things worse, some students had traumatic memories from escaping from war-torn countries, which sometimes triggered post-traumatic stress syndrome, which was exacerbated while learning at home all day during the pandemic. One parent noted, "They need to socialize, and they need to have friends. Especially, with my oldest just. ... she was saying that she was getting depressed and so, I mean, it was hard."

Some administrators and teachers provided time for activities that were not related to school curricula on a video conferencing program such as Zoom to support students' mental and emotional health and provide opportunities for students to interact with classmates. At times, students connected with friends on their own via Zoom or Facebook Messenger. One parent described this situation as follows:

The teachers really made a good effort to stay in contact with the children so they had, you know, Zoom calls, and they weren't lessons, they were just check-ins. So just to kind of check-in and talk to the other students, you know, let the students kind of have that time to just connect with the class, connect with the teacher. So, they didn't have actual synchronous or webinar lessons. It was just connection time. I think it really

helped that they were thinking not only about the learning but the socio-emotional things that the kids were going through and making sure they were trying to support that piece too so that the kids who were feeling lonely and sad and missed their friends could see them, could talk to them, could interact with them, so I think that was really great support. They also wanted the students to continue all of the specials, so not just the math and reading but also like physical education and music.

One administrator also noted providing activities to facilitate more socialization via video conference programs, "I was able to provide a fitness club, a gaming club, just a place to allow students to gather, socialize with their peers, and do something fun on Zoom. So that was probably a benefit."

On the other hand, some schools did not provide any activities to address the need for social interaction, as noted by parents, teachers, and administrators, in that order.

No, oh no. There was no ... there was nothing ... there were no parent-teacher conferences or social-emotional wellness activities for students.

I wish we could have had something ... we could of ... we know the kids are scared ... just more social-emotional help for them.

We couldn't do any kind of extracurricular or enrichment activities that students need.

Another example of supporting students' mental health involved academic sense-making activities. In order to help students gain a more positive experience, a teacher published a book entitled "The Class of COVID-19: Insights From the Inside." In this book, students contributed chapters pertaining to their experience during the pandemic as a way to document this time period and make sense out of it. The book's publication led to a feature story in People Magazine (https://people.com/human-interest/nj-high-school-students-write-covid-memoir-teacher-shawn-adler/).

Finally, the interviews also revealed that administrators, teachers, and staff members needed support for their mental and emotional health as well. One administrator noted,

I also feel that there needed to be more mental health. I think more mental health help for principals, for teachers, for even central office people. The district came across very callous because they were just trying to get things done, and then in turn I think some principals became that way because they thought, 'I just got to get it done,' and in the sense of getting things done you could lose people.

Support

The final factor, support, showed that the parents, teachers, and administrators valued support in this sudden remote teaching environment and expressed concerns and recommendations for better support during online learning. Support was broken down into three categories: (a) home support, (b) school support, and (c) peer support.

Home Support

One aspect of home support reported by parents involved adjusting their children's room to resemble their classrooms to help them feel like they were in a school environment and, therefore, help them focus on school work:

The board—yeah. You put it in front of him so that he would be getting the resemblance of his school, where there's always the letters and words and signs and symbols on the door and kind of cut down on like any distraction.

In addition to adjusting the physical home environment, some parents helped their children to prioritize their workload, organize schoolwork, and manage time for completing assignments, since teachers were not there as in in-person classrooms. One parent explained,

I think the ongoing support of having to really guide them through that learning process. So, you know, normally they were at school all day and they were doing that independent of me, but I had to lead that learning process now ... make sure that when there was a Zoom class with their teacher that they were logged in and able ... and participating, you know, in the call. Kind of checking in on them, making sure.

Further, parents reported that they felt they had become teacher assistants to make sure their children were actually completing the work, "I acted like a teaching assistant—making folders, daily plans organizer, helping technology-related issues." However, some parents were distressed and

frustrated because they could not assist their children for a multitude of reasons, including work responsibilities, elder care, and financial hardships, "As a mother, I can't help my children with their homework because they don't know what they're doing. They don't know what they are doing!"

Some teachers purchased equipment to adjust their work area at home and to foster better online instruction as well as to coach parents on technology use, as one interviewee aptly—remarked, "Teachers were now not teaching just their students, they were teaching the whole family." Some tech-savvy teachers updated their home equipment to optimize instruction, "I mean I told you about my setup, so I've got like ... I've added extra monitors to my computer. I also got a big microphone. I attempted to make my room to be like a TV studio."

Administrators made similar comments regarding the immediate need to provide the tools and technology necessary to make the transition from school to home successful, "Whether or not it's a child not having a space—we deployed desks, we gave families anything they needed to adjust their home setting for learning." Finally, administrators expressed concern about privacy issues, "A lot of the parents don't want you in their home. They don't want the teachers seeing inside their house with what's going on."

School Support

Another salient category that emerged from the data was the participants' perspectives on school support and what they believed the school needed to provide to aid them. Parents expressed anxiety because they felt they could not assist their children in projects or processes because they were unfamiliar with such programs as Google Slides:

Google Slides, and like really put on a full presentation and messing with fonts and colors and boldness and links and just the research behind it, all of that rolled into one. It was very overwhelming to me as a parent because she wasn't taught those skills in the classroom prior to getting those types of assignments.

Teachers were also looking to the school administration for support. Although some received training and professional development (PD), "We had on-demand technology training ...we provided a lot of professional development," others felt PD should be more inclusive, "I think they should have offered a workshop for the kids. I think a parent workshop too, just to show them."

All the teachers, including those who had resisted using technology prior to the COVID-19 pandemic, were forced to obtain knowledge and skills on how to use technology and how to use technology for teaching. Although

this was not done voluntarily, it increased their interest and confidence in teaching with technology and promoted the development of their students' digital competence (Ertmer et al., 2012).

The need for clear and continuous communication was apparent in the responses of all groups. For example, one parent said,

They had great communication. They took a whole week off to give us all of the curricula that we needed for the rest of the year, so they were well prepared, and it helped a lot that they did that. So, it was very supportive that they did so much preparation work in advance and then stayed in contact with us.

Some teachers recognized the need and improvised, "There was a need to get communication out there, so I created videos every week, sometimes two or three videos a week, that I would just shoot out to the families, just kind of giving them updates."

In an attempt to improve communication, some teachers and principals used a variety of technology-based communication tools to reach out to students and families, "We're a big Remind app school, so all of the teachers have their own Remind accounts. That's them, I don't ask them to do that, that's what they do."

Parents also mentioned that:

They [teachers] all have some type of either email or a little app thing that they use—Seesaw or Class Dojo—or some way to get in touch, so if there's any questions or if I'm not sure how they're doing [we can connect], but all the teachers have been great and they've been emailing constantly, which is good.

Part of the need for school support stemmed from the new and extended responsibilities each group experienced. Some administrators expressed empathy for their faculty who obviously needed help grappling with the immense changes required of them to design and deliver online instruction, "The teachers needed additional time to lesson plan because of the unfamiliarity with teaching in this model."

Some teachers felt like they had to teach not only their students but also their students' families, since they were often in the vicinity of the at-home computer, interested in what was being taught, and wanted to help their children. In addition, some teachers noted that they had to do double the work for certain tasks such as submitting lesson plans in school templates or putting their lessons in Google Classroom. Other administrators mandated the use of specific technology offering training but requiring all teachers to learn immediately,

I asked them all to create Google Classrooms. So, we quickly trained anyone who didn't—who wasn't capable of doing that on their own so quickly, and then last September that was a requirement, every teacher had to have a Google Classroom just in case of going remote. So, we used Google Classroom a lot.

In terms of technological readiness, all three groups, parents, teachers and administrators, reported they were in need and wanted more training but delivery varied from school to school.

Another finding related to the importance of empathetic and flexible leadership. In one instance a parent was astonished that, "The principal actually called us and sent food," while a teacher described her reaction, "Parents are like, 'We need help with this, and they're like, 'Oh my god, I'm so frustrated.' I'm like, 'No worries. I can help you. It's not a problem. I'll pass the message along. I got it. We got you.' So, they're like, 'Thank you so much.' I was like, 'No, no worries.'"

Many administrators expressed concern about the wellbeing of their faculty who were taking on too much responsibility, "I'm concerned about teacher burnout, quite honestly. I think the teachers are really stressed, and I think some of it is self-induced." They also expressed concern about the additional responsibilities teaching remotely generated, including sensitive issues that other personnel often handled, such as child abuse, "Our fear is that being at home they're getting neglected. So, child abuse is very—it's very out there right now, and that's the scariest thing."

Parents, teachers, and administrators reported the lack of support for ELLs and households that did not speak English. These were areas of need before the pandemic but were now exacerbated. One administrator in a predominantly Spanish-speaking community expressed his frustration, "I only have one Spanish-speaking teacher in my school." School personnel figured greatly into the need for support. Interviewees emphasized that much more specific help was needed in these areas. For example, teachers were looking to the administration for help with the new task of reaching out to all of their students:

We have spreadsheets and spreadsheets of, you know, the phone call made and then it has to be logged next to that child's name in the computer in the school system. So that's something calling homes, you know, under normal circumstances, but during remote for whatever reason you needed to find out why they weren't showing up. Is it a tech problem? Are you sick? Did you move? You know. That is beyond what one teacher can do. We need a support personnel who does this work.

Administrators recognized this, stating bluntly, "We need more school counselors." Some administrators were innovative, "So, one of the things that we did was, in addition to like a shortened school day, we did modules that we printed off, and then we delivered them to schools in the students' neighborhood and then they would have to come and pick them up at the schools."

Many teachers talked about the need to reach out to parents in their native language:

Most of the parents do not speak English. Just so, you know, I do speak Spanish. I call the Spanish-speaking parents in Spanish purposely to make them feel comfortable. Yes, yeah. I'm often asked by the guidance counselor to call a student, for example, because the counselor doesn't speak Spanish.

But, this was not the norm, most reported a shortage of teachers who spoke the children's home language.

I only have one Spanish-speaking teacher in my school. I'm trying to make that number grow a little bit. She was fantastic and was eager to earn a little bit of extra money; she went every day from six to seven for parents who didn't speak English who had some concerns because we could no longer rely on the kids to relay messages because their messages were always to their own benefit, of course.

Moreover, many families were multi-generational, so there was concern about health issues in their households and, in some cases, immigration status. Therefore, "They were terrified to go even look for assistance. We need to understand that." Administrators understood the issues and concerns of their constituents, "I have a population that has trust issues; it takes a long time to gain their trust, and, fortunately or unfortunately, most of this fell on my school counselor because they have relationships with her."

Peer Support

The final category was the significance of peer support. Parents, teachers, and administrators reported that they sought support from their peers in a variety of ways. For example, parents told us that, "We have built a lot of strong relationships outside of school ... kind of helping each other really," "On Facebook, there are a lot of parent support groups. We helped each other."

Teachers also sought support from their peers. "They [teacher peers] got onto Google Hangout and they would do texting—basically texting each other back and forth to teach and learn." Likewise, some administrators found they needed professional support from their own peers, "Having peer support as principals with no specific guidance from the superintendent was very helpful since I had to figure out by myself."

DISCUSSION AND IMPLICATIONS

The COVID-19 pandemic brought up and accentuated problems that existed below the surface for many years. With regard to education, this unfortunate and painful experience has led to the realization that deliberate attention and support is needed to effectively prepare for digital learning in U.S. high-needs schools. To that end, we put forward the following two arguments.

First, we need to examine this phenomenon critically to deeply understand the context, while being cognizant that there are unique socio-cultural needs, obstacles, and elements of uncertainty in high-needs schools that make online and blended learning efforts difficult, if not impossible, for many students and their families. Thus, teachers, school leaders, and policy-makers cannot continue to teach and lead in high-needs schools in the same way as in other learning environments.

Second, we need to listen to and understand what the main stakeholders (parents, teachers, and administrators) in high-needs K-12 schools have experienced from the first-person point of view. The findings from the phenomenological interviews in this study revealed four factors that could play facilitative roles when provided, supported, and fostered in high-needs school communities: (a) accessibility of basic needs related to living and studying and digital devices along with stable Internet connections; (b) usability of technology; (c) physical as well as mental, social and emotional health wellness; and (d) home, school, and peer support. Hence, before designing and implementing online learning, it is important for all parties involved—parents, teachers, and administrators—to thoroughly consider the kind and scope of support needed. Based on these findings, we suggest the following.

First, it is critical to plan for being able to supply the basic needs for students (e.g., students who are eligible for free lunch at public schools) and access to computers and Internet connections. As Maslow's hierarchy (1971) indicates, failure to provide basic physical accessibility can make student learning much more challenging, regardless of the format. Educators have adopted the terms "bandwidth" or "cognitive capacity," coined by psychologists (Mullainathan & Shafir, 2014), to describe the effects of

a preoccupation with a scarcity of basic needs (food, clothing, and money) and how it depletes a person's bandwidth. When bandwidth is depleted, the ability to problem-solve and make sound decisions is diminished, and learning is nearly impossible (Mullainathan & Shafir, 2014).

In some high-needs school communities, administrators and teachers were not able to provide funding and turned to parent-teacher organizations for food donations to send to their students or support for computers and stable Internet connections. In other situations, the funding was there, but couldn't be allocated. Although U.S. schools have received more than \$190 billion in funding since the start of the pandemic, the repeated school openings and closings have severely limited the amount that can be spent on technology compared to more immediate staffing concerns related to hiring new faculty or initiating layoffs. In short, the current crisis has generated an unpredictable landscape, with many schools becoming hesitant to devote substantial resources to distance learning efforts ("As Schools Battle Omicrom ...," January 14, 2022).

Second, as observed by Sterrett and Richardson (2020), there is a relative dearth of studies on the role of principals with regard to technology integration, with most studies focusing on teachers. Yet, in order to effectively maximize teacher capacity in this area, school leaders need to understand, envision, and support various possibilities for digital learning. Digital leadership consists of "a dynamic combination of mindset, behaviors, and skills that are employed to change and enhance school culture through the strategic use of technology" (Sheninger, 2019, p. xvii). In order for school leaders to be ready to assume digital leadership, we believe in reinforcing the need for International Society for Technology in Education Standards for School Leaders (ISTE, 2022), given that the importance of digital learning is growing in K-12 schools despite the decreasing threat of COVID-19. School leaders need a clearer "direction on how leadership and resources can be optimally combined in utilizing technology to support teaching and learning goals" (Dexter, 2011, p. 169).

Third, a multitude of educational resources, including technical manuals and videos, have been produced during the past two years in the United States, albeit mostly in English. In high-needs schools in which the majority of students and their families speak and write in a language other than English, translated versions of these resources in other languages is critical to foster learning with technology in a digital environment. If not planned thoroughly and afforded appropriate support, students' learning processes and outcomes may move in a downward trajectory. Thus, more funding for designing multilingual educational programs and resources need to be allocated and supported.

Fourth, it is critical to take physical as well as mental, social, and emotional wellness into consideration when designing online learning in highneeds K-12 communities. It should not be assumed that students will receive the necessary support at home. The COVID-19 pandemic has greatly initiated and intensified the need for social-emotional learning. Intentionally teaching and providing social-emotional strategies in an online environment would help support students' health and wellbeing. In addition, physical exercises and activities sessions need to be designed and implemented into an online environment (e.g., mindful yoga, frequent stretch times).

Fifth, parents, teachers, and administrators reported relying upon and/ or needing multiple systems of support. Generally speaking, online learning requires more time and professional knowledge from parents (Dong et al., 2020). In high-needs schools, teaching and learning about technology is of the utmost importance, especially for parents to increase their capability and self-efficacy. Teachers and parents expressed the need for professional development workshops on technological tools and the functions of these tools, and many teachers expressed the need for just-in-time support for using various technologies rather than having to wait for the specific PD. Some teachers pointed to the importance of learning content- and pedagogy-specific instructional design with technology. Others mentioned the need to deliver more hands-on and project-based learning in an online environment, but noted that this is challenging without experiences and skills in utilizing online applications. This consideration was related to parents' complaints that the online lessons were mostly didactic, teacher-centered, and worksheet-based, features that are regarded as ineffective for online lessons. Therefore, professional development on innovative use of technology that promotes a collaborative and interactive learning online community and that allows teachers to move away from teacher-centered strategies (Jones & Dexter, 2018) is needed to foster more student-centered and active online classrooms.

Having supportive, empathetic personnel in schools, such as an educational technology liaison or a counselor, who can provide outreach to families and students at home for individualized support is also crucial. During the COVID-19 pandemic, some principals acted as support personnel for families and students by visiting their homes to ensure that they were safe. In high-needs schools, at times, contact information is not available or not entered in the system, or parents do not respond to the schools for many reasons, such as fear of revealing their illegal status living in the U.S. Thus, providing support for individualized outreach to student families electronically or physically is an important factor for facilitating online learning.

Support for creating peer support groups is another critical aspect. As shown in this study, some parents, teachers, and administrators were able to

form their own support groups and/or seek out resources, including from social media such as Facebook groups where they can post their questions, receive the answers or find needed information. Yet, these kinds of initiatives are not possible for everyone in the high-needs community. Thus, in order to ensure everyone has a support group, a systematic mechanism needs to be established.

Finally, culturally responsive leadership is crucial. Hiring more teachers and staff members who share the same ethnic, cultural, and linguistic background as the students and parents they work with is recommended for academic, emotional, and social wellbeing, since it enables them to have a better understanding of the whole community's needs and creates a stronger bond to the school community. To that end, teachers and administrators in this study discussed the need for bilingual teachers who speak the home language of the children they teach to facilitate learning as well as to improve communication between home and school.

LIMITATIONS

Since we used a convenience sample, participants were not representative of the U.S. population as a whole. Additionally, the interviews occurred at the end of December 2020 and in the spring of 2021. Thus, participants' reflections upon their experiences might have been slightly different since pandemic cases had dissipated in some areas as time went on. In addition, the potential of preconceived beliefs on the selection of interview questions and how the questions were asked may have had an impact on the results.

Furthermore, the authors had originally decided to also interview students; however, it was found to be too difficult to recruit students for this study during the COVID-19 pandemic. Yet, it would have been beneficial to have heard students' voices, since they are the primary audience that this study has strived to address. Any remarks in this paper regarding students were gleaned from the words of the parents, teachers, and administrators. Further studies should go more in-depth with each group of stakeholders while also focusing on more diverse populations.

CONCLUSION

As we enter the third decade of the 21st century, it is has become increasingly evident that while some U.S. schools are doing quite well amidst our current learning ecology, others are not. Often, schools where student measures fall short of the desired norm are located in urban and rural areas at the low end of the socio-economic spectrum, with students from historically

marginalized groups. While problems and issues in schools are regional and often combined with region-specific factors, certain patterns warrant attention as they demonstrate a level of "high needs." Thus, while not searching for a panacea, nonetheless, we sought in the current study to understand, and to some extent, generalize which problems and proposed supports could impact the issues faced in other high-needs school settings.

Prior to the COVID-19 pandemic, much of the discussion of digital equity focused on two important areas: access and literacy. Access to digital devices and knowledge about how to use them and for what purposes have been and continue to be important factors related to digital equity. However, access to digital devices and Wi-Fi infrastructure and knowledge of how to use digital devices does not resolve the problems posed by issues caused by the pandemic. Problems far more serious and related to the social fabric and lived experiences of the students and families affected by traumarelated events during the pandemic exceeded problems of practice posed by access and literacy alone. The pandemic led to a mass level of trauma that placed learning, digital learning, in particular, on the back burner for many families, not because they wanted to but because they needed to persist and survive amidst extremely difficult conditions. At the same time, however, it is also a reminder that during non-pandemic times, many students and their families experience high levels of trauma. This realization should help us recognize the importance of understanding students' lived experiences as they relate to trauma, equity and inequity, digital access, and digital literacy..

Adopting a phenomenological approach, this study contributes to the field by giving voice to the lived experiences of parents, teachers, and administrators and, based on these first-hand experiences, providing detailed considerations for successful planning, design, and implementation of online or blended programs in K-12 settings in high-needs schools. We recognize that some of the factors are applicable to all types of school communities while others are more relevant for high-needs schools. Our society can no longer take lightly the problems and challenges that exist in high-needs schools (e.g., lack of accessibility, usability, and support for diversity and inclusivity support). These schools and the students they serve must receive greater attention to ensure better learning experiences and outcomes for students.

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1 https://www.nsf.gov/pubs/2020/nsf20086/nsf20086.jsp#g8

To be characterized as "high-needs," a local education agency (LEA) must meet one of the following criteria:

- Has at least one school in which 50% or more of the enrolled students are eligible for participation in the free and reduced-price lunch program.
- 2) Has at least one school in which
 - a) More than 34% of the academic classroom teachers at the secondary level (across all academic subjects) do not have an undergraduate degree with a major or minor in, or a graduate degree in, the academic field in which they teach the largest percentage of their classes; or
 - b) More than 34% of the teachers in two of the academic departments do not have an undergraduate degree with a major or minor, or a graduate degree, in the academic field in which they teach the largest percentage of their classes.
- 3) Has at least one school, whose teacher attrition rate has been 15% or more over the last three school years.

APPENDIX A Interview Questions

Parents:

- 1. What was your experience when your child moved to remote instruction or a different type of teaching mode during the COVID-19 pandemic?
 - a. What was something that went well?
 - b. What didn't go well?
- 2. What was your impression of your child's experience during the move to remote instruction?
- 3. What kinds of concerns, if any, did you have for your child during the transition? Before? After?
- 4. How did you support your child during class, if at all?
- 5. What aspects of support, if any, were difficult for you as a parent?
- 6. What kinds of perceived barriers existed for your child, yourself, families, and schools/families?
- 7. What kinds of hardships did you and your family experience during this time?
- 8. How did your child acclimate to learning remotely during the transition? What kinds of supports did you find helpful for your child and for you, as a parent? What supports were missing?
- 9. What support did the school provide you? What supports do you believe were lacking or could have helped your child and you, as a parent?

Teachers:

- 1. What was your experience moving to remote instruction or a different type of teaching mode during the COVID-19 pandemic?
 - a. What was something that went well?
 - b. What didn't go well?
- 2. What types of concerns did you have for yourself, for students, and for their families?
- 3. How did you deliver lessons to students during the transition?
- 4. How did you acclimate to teaching remotely during the transition?
- 5. What kinds of perceived barriers, if any, existed for students, yourself, families, administrators?
- 6. How did you respond to situations when you became aware that students were experiencing hardships?
- 7. What support did the administrators provide you? Students and parents?
- 8. What supports, if any, do you believe were lacking or could have helped?
- 9. What kinds of supports did you find helpful? What supports were missing?
- 10. Is there anything else you want to share with us that you did not mention? Do you have any questions for us?

Administrators:

- 1. What was your experience moving to remote instruction or a different type of teaching mode during the COVID-19 pandemic?
 - a. What was something that went well?
 - b. What didn't go well?
- 2. What were some of the priorities during the transition to online teaching and learning?
- 3. What professional development (training), if any, did you provide teachers to support their remote instruction? What worked well for teachers and what did not work well?
- 4. What kinds of concerns, if any, did you have for yourself, for teachers, for students, and for their families?
- 5. What kinds of perceived barriers, if any, existed for students, yourself, families, and administrators?
- 6. How did you respond to situations when you became aware students were experiencing hardships?
- 7. What impediments, if any, did you become aware of regarding students' learning?
- 8. What kinds of support, if any, do you think were lacking? What support could have benefited your school?
- 9. Is there anything else you want to share with us that you did not mention? Do you have any questions for us?