

# ***MORE VOICES FROM THE FIELD: ADVICE FROM LEADERS PLANNING FOR K–12 REMOTE TEACHING***

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This study examines advice from educational leaders on planning for K–12 remote teaching during the COVID-19 pandemic. The authors identify key themes for accommodating disrupted schooling and preparing for future remote learning scenarios. The findings emphasized the importance of reflection and feedback, clear communication, innovation in teaching methods, and focusing on essential learning outcomes. The authors highlight the need for emergency planning, ongoing professional development, and addressing technology access issues. While the interviews were conducted in 2020, the guidance remains relevant for preparing educators to seamlessly transition between in-person and remote instruction in case of future school closures.

## ***INTRODUCTION***

In mid-March 2020 the COVID-19 pandemic forced schools worldwide to rapidly transition to emergency remote teaching, presenting significant challenges for educators unfamiliar with online instruction. Recognizing the value of expert advice in this situation, the lead researcher conducted interviews with 27 professionals in K–12 distance, online, and blended learning offering guidance to teachers on effective remote instruction practices. The analysis of those interviews revealed five main themes (Barbour & Wilson, 2024). However,

as the 2019–20 school year drew to a close, many educational leaders began planning for a 2020–21 school year that was likely to continue to be disrupted.

With the initial series concluding, the lead researcher decided to shift the focus of the series to address two critical issues: how to conclude the current school year and its implications for the start of the next, and how to prepare for seamless transitions between in-person and remote learning in case of future lockdowns or outbreaks. The focus of this second series of “5 Minutes On K–12 Online Learning With...” aimed to help educational leaders better navigate the uncertainties of the

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upcoming school year and improve their ability to adapt to changing circumstances. This article provides a thematic analysis of the guidance that was provided.

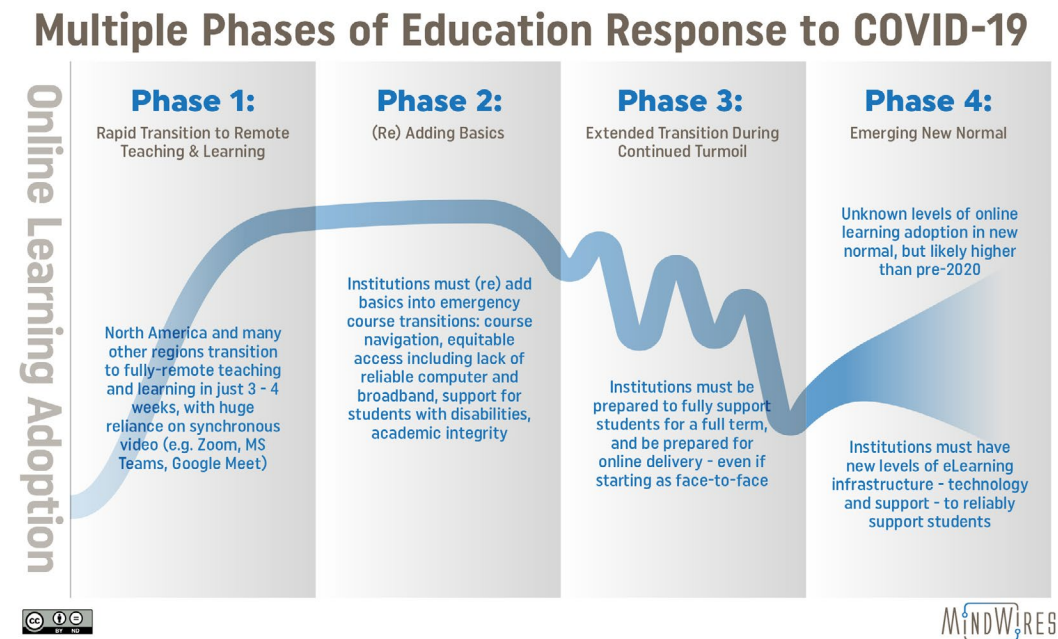
**LITERATURE REVIEW**

Throughout the pandemic, but particularly in the early stages of the school disruptions, scholars made concerted efforts to distinguish between traditional distance/online learning and the rapid transition to emergency remote learning that educators were experiencing (Hodges et al., 2020). It was also recognized that the transition from face-to-face instruction to remote instruction was not a simple pivot that could be turned on and off, that it was a graduate transition that occurred in phases.

The first series of “5 Minutes On K–12 Online Learning With...” was focused and released at a time when teachers were in Phase 1, and—to a lesser extent—possibly moving into

Phase 2. However, as the 2019–20 school year concluded, educational leaders were faced with a two month summer break in which they had to plan for a new school year where future disruptions were both predicted and likely to occur.

Phase 3 of the educational response to COVID-19 is characterized as a ‘toggle term’ or ‘toggle year,’ where a school is able to switch from in person learning to remote learning as “states of lockdown and openness, depending on their sense of epidemiological data and practical feasibility” persist (Alexander, 2020, para. 32). This phase requires schools to ensure consistent quality of education across both modalities through proper planning and preparation. Schools and districts face multiple challenges during this period (Barbour et al., 2020). They must simultaneously improve current teaching and learning experiences, prepare for a post-COVID future, and maintain readiness for potential school closures requiring rapid shifts to remote learning. However, it’s important to balance these goals without



**FIGURE 1**

Taken from Barbour et al. (2020).

overwhelming teachers and students who may already feel fatigued from adapting to constant changes. Moving forward, schools should plan for various scenarios, including staying online for an entire term, starting online with the possibility of returning to the classroom, or beginning in-person with the potential to shift back to remote learning. The focus should be on transitioning from “emergency remote teaching” to more thoughtfully prepared online learning experiences. This phase is likely to see higher levels of online learning adoption compared to pre-pandemic times (Barbour, 2022). As such, schools must invest in robust online learning infrastructure, including technology and support systems, to reliably serve students. The tools and infrastructure acquired during the pandemic can continue to be utilized post-pandemic, with increased comfort and familiarity potentially leading to sustained use of these resources in the future.

The U.S. Department of Education’s Office of Educational Technology has long recognized the importance of online learning in K–12 education (U.S. Department of Education, 1996, 2000, 2004, 2010, 2016, 2017). Despite these long-standing recommendations, a 2016 study found that only 4.1% of U.S. teacher education programs were preparing pre-service teachers for online learning (Archambault et al., 2016). While the sudden shift to remote learning during the COVID-19 pandemic in 2020 may have seemed unexpected, the US Department of Education’s Office of Educational Technology had been advocating for teachers to be prepared for online teaching for nearly a decade. However, despite the growing prevalence of online learning environments, research indicates a significant lack of preparedness among teachers for online and remote instruction. Studies have consistently shown that only a small percentage of teacher education programs provide training in online teaching methods (Archambault et al., 2016; Archibald et al., 2020; Kennedy & Archambault, 2012; Siko et al., 2024).

This deficiency became glaringly apparent during the COVID-19 pandemic when many

educators struggled to adapt to emergency remote teaching (Hathaway et al., 2024; Lahr & Welch, 2023; Strackle et al., 2022; Van Nuland et al., 2020; Woo et al., 2023). The transition highlighted not only a lack of technical skills but also challenges in maintaining student engagement and addressing issues like mental health and equity in virtual settings (Hill et al., 2020). Even teachers with advanced coursework in educational technology often lacked the efficacy to teach effectively online under pandemic conditions (Eadens et al., 2022). This unpreparedness extends beyond pre-service teachers to in-service educators and even higher education faculty (Johnson et al., 2023). The situation underscores a critical need for comprehensive reform in teacher education programs to include practical experience in designing and facilitating online instruction, as well as strategies for building relationships and adapting to short-term disruptions in educational settings (An et al., 2021). As online and blended learning continue to play an important role in education, addressing this gap in teacher preparation has become increasingly urgent.

Recent reports suggest significant improvements in K–12 schools’ pandemic preparedness, with most public schools now having disease plans and feeling equipped for future outbreaks (Peez, 2023). However, these findings warrant closer examination to understand the specifics of these preparations and to determine whether they represent a meaningful advancement over pre-pandemic readiness levels given that 46% of districts *claimed* to be ready in 2017–18 for extended school closures (National Center for Education Statistics, 2020). Interestingly, the U.S. Department of Education (2024) released the *2024 National Educational Technology Plan* in January 2024, the first since the start of the COVID-19 pandemic, largely overlooks the issues of teacher preparedness for online instruction and online learning in general (Barbour & Hodges, 2024). This omission is particularly striking given the widespread challenges educators faced with remote teaching during the COVID-19 pandemic.

## **METHODOLOGY**

The goal of this project was to equip educational leaders with advice on how to plan for an up-coming disrupted school year, or to address the transition to Phase 3, was the focus on the second series of “5 Minutes On K–12 Online Learning With...” interviews. Over a six-week period the lead researcher interviewed 27 individuals in the field of K–12 distance, online, and blended learning.

The lead researcher leveraged personal contacts to arrange interviews with veteran school leaders, university researchers, and independent evaluators (although many of those individuals had at various times in their careers also been classroom and online teachers). The specific questions that were asked during this second series included:

1. What advice would you give to school leaders in terms of accommodating the disruption that has happened during the 2019–20 school year with respect to finishing up this school year and/or beginning the next school year?
2. What advice would you give to school leaders on how to prepare for the likely scenario of a local flare up or second wave shutting down their system again at some point during the 2020–21 school year?

The collection of 30 interviews was posted to the blog in an unedited fashion at noon each weekday from 04 May to 12 June 2020. The data for this study was generated through automated transcripts of these interviews, which were checked by the researchers for accuracy.

The analysis of the interview transcripts followed an inductive approach, as described by LeCompte and Preissle (1993). This method involved examining the data for categories and relationships both within individual transcripts and across multiple interviews. The process utilized Ruona’s (2005) four-stage technique, which employed a table format and MS Word’s search and replace features. The first stage in-

involved preparing the data by transcribing each interview and formatting it into a six-column table. The second stage focused on familiarization, where the researcher listened to the interviews and read through the transcripts. In the third stage, the data was coded. Finally, the fourth stage centered on generating meaning by combining all coded files into a single document and organizing the coded data into potential categories to identify overarching themes. This systematic approach allowed for a thorough and structured analysis of the interview data.

The participants were overwhelmingly involved in the field of education in one aspect or another. Most participants fell into three categories: (1) current or former professors, researchers, or administrators at the university/collegiate level; (2) current or former teachers and administrators within a K–12 educational setting (online and in-person); (3) current or former administrators or employees of education related organizations (e.g. non-profits, learning management systems, consulting companies, government agencies). The interviewees were citizens or residents from various countries around the world such as the United States of America, Canada, United Kingdom, and Australia.

## **LESSONS FROM EMERGENCY REMOTE LEARNING**

The second season interviews highlighted educational leaders during the early days of the COVID-19 pandemic. The pandemic introduced major shifts across all sectors of education. Learning went mostly online; in many areas this online learning shift occurred immediately after the enactment of lockdowns. Only a fraction of educational leaders, amongst the millions of educational professionals around the world, had ever led a school, or educational organization, through a purely distance learning, or blended learning, environment; very few had received professional training or credentials within this particular field of ed-

ucation. The second question for season two asked participants “What can school leaders do to accommodate the unusual nature of this particular school year, what advice do you have for them?”

### ***Triaging Emergency Remote Learning***

The first theme identified by interviewee responses centered around gathering feedback and reflection. Respondents noted what went well, what didn’t go well, what could be improved, and so on. Essentially, the issues that were important to analyze during this initial triage stage of instruction. One respondent stated:

So collecting feedback, not just from the families and students but from your staff and your faculty. What went well, what didn’t go so well, and how can we learn from those different lessons and help us to plan for next year. (Allison)

Another interviewee, in her response regarding reflection, said the following:

So we had this time, where we were trying things out, being flexible, being creative and it really helped us make that transition and change for everybody. But I’m going to tell you, there were hiccups along the way. And people were willing to accept those hiccups because we were all in an emergency situation. But when we start next year. Those that it’s, I don’t think it’s going to be acceptable. I think some of the things that happened aren’t going to be acceptable. Right, because we should have already set those plans. We’ve already had those stages, right. So we’ve already done the trial and error period. (Kim)

These two responses indicate that reflection and feedback were crucial to obtain should the current situation be prolonged or happen again in the future. The use of phrases such as “what went well, what didn’t go well” and “trial and error period” emphasized the need to quickly get past this initial lockdown stage of learning.

One individual even addressed the need to move forward when stating:

And I want to focus on closing out this year is this. It’s that one word of reflect. You know, you need to reflect, to ensure that there is a response for next year, rather than a reaction to what happened this past year. It’s always that forward looking piece. (Joel)

Essentially, respondents emphasized the importance of gathering feedback, reflecting on successes and failures, and using lessons learned to plan for future instruction, particularly as education transitions from emergency measures to more established remote learning practices.

The research indicates that educators and administrators recognized the need to systematically evaluate their initial responses to remote learning in order to improve future practices. In fact, the very notion of a ‘triage stage’—or ‘trial and error period’ as mentioned by Kim—reflected the rapid transition to emergency remote teaching that many schools experienced, and aligned with distinction between emergency remote teaching and well-planned online learning (Barbour et al., 2020; Hodges et al., 2020). The interviewees’ responses suggest an awareness that this initial phase needed to evolve into more structured and refined approaches to distance education. Additionally, the concept of gathering feedback from multiple stakeholders, including families, students, and staff, is consistent with best practices in K–12 online learning. For example, Borup et al. (2020) emphasized the importance of involving various stakeholders in the design and implementation of online learning programs to ensure their effectiveness and sustainability. Finally, the overall theme of using reflection and feedback to inform future planning is consistent with the concept of “design-based research” in educational technology, as described by Anderson and Shattuck (2012). This approach involves iterative cycles of design, implementation, and analysis to improve educational interventions, particularly in technology-enhanced learning environments.

### ***The Role of Communication***

The second theme identified by many interviewees was strongly associated with the need to constantly communicate and maintain communication with educational stakeholders (e.g., students, parents, staff). It was acknowledged that the lack of fully in-person learning, and meetings, could impact social/emotional well-being. One respondent, when identifying the need for connection, stated:

And one thing that they did was each parent or each family got contacted every other week. A personal contact like a phone call or something like that. Which seems really powerful. And so it feels like right now it's kind of this incubator stage where you can explore and you can find new things. Because unfortunately I think we're going to have prolonged school closures in the fall as well. (Jered)

A second respondent, when identifying the need for connection, stated:

The last time we talked I really spoke to the need to focus on connections. And I think that's one of the big things that we've lost having the school year sort of snatched away from us. The end of the school year and the beginning of the next school year. That's, that's a time of rounding out the connections you've made over the last year or building new connections for the incoming year. (Saro)

These responses indicated that the successful shift to distance and blended learning relies upon maintaining close connections—even if those connections must be maintained from afar.

Building on the importance of maintaining connections, effective and frequent communication emerged as a critical strategy for managing stakeholder concerns and facilitating the transition to remote learning environments. Another respondent, regarding communication, summarized it quite well when she stated:

The other thing that I perhaps mentioned is communication. It has been absolutely critical for those plans because they've been flexing so much here in Australia. Or the need to flex that the strategy if it's revised is communicated really clearly and even if it's as much as we're going into a briefing with our principals and as soon as it's over I'll be in a better place to let you know what's happening next. Those small messages to our teachers have been really critical in helping them manage their concerns and anxieties. Because at the end of the day, our teachers just want to do the best job, they can. And so they want to have as much knowledge and preparation time as possible and that communication of strategy. (Meredith)

Simply put, clear and consistent communication was deemed essential for managing teacher anxiety and adapting to rapidly changing educational plans during the transition to remote learning.

Existing research emphasized two key aspects related to this theme: maintaining connections with stakeholders and effective and frequent communication. First, the shift to remote learning disrupted traditional in-person interactions, potentially impacting the social and emotional well-being of students, parents, and staff. To address this, schools implemented strategies to maintain personal connections, such as regular phone calls to families. This aligned with a significant body of research built around the Community of Inquiry framework indicating that social presence and interaction are crucial elements in online learning environments (Garrison et al., 1999). Second, clear, consistent, and timely communication emerged as a critical strategy for managing stakeholder concerns and facilitating the transition to remote learning. This finding supports earlier research highlighting the importance of communication in online learning contexts (Borup et al., 2013; Moore, 1989). These findings contribute to the growing body of literature on K–12 distance and online learning by emphasizing the human element in technology-mediated education.

***Pushed to Innovate***

The third theme was the acknowledgment by many interviewees that flexibility, experimentation, and the opportunity to explore new models of learning was vital. This was also an important theme expressed for question 3. One respondent, regarding experimentation and innovation, noted:

And if we ever needed innovation in education, it's now. I've heard stories of teachers bending over backwards to support students through email, phone calls, personal visits, and tutoring. I even had one teacher that tutored a struggling student from his driveway. And not just for her class, but for several other classes that he was in. I've worked with teachers that have connected with their students online and extremely innovative ways. One teacher said, "we need to do human things with the technology." That's what she was really working towards. I think teachers' willingness to do these types of things and really innovate comes from a sense of purpose that is really achieved well. Through giving them as much autonomy as possible. (Michelle)

A second respondent, also emphasizing flexibility, stated:

Yeah, I think the best piece of advice that I can give centers on the theme of flexibility. So, we know you know we know that there's a lot we don't know in terms of what's happening here. And fortunately, with some of the tools that exists for online learning, there are opportunities for flexibility. And so what I mean by that is just preparing for you know the case that you may open up soon. Or you may not." (Bryan)

The responses regarding flexibility, experimentation, and exploring new educational models indicate that this hectic time period in history can be utilized to benefit students now and in the event a similar situation occurs again; the notion of not wasting the lessons of this time period, and learning from it, were emphasized.

Finally, one respondent indicated the importance of technology as an experimental tool to ensure the needs of all learners are met. This person stated:

But when it comes to distance education or remote learning. There was no one size fits all. Right there is there is no blue plan a no plan for everybody to hit because every school is unique, your students are unique, and you have a different set of resources that are available to you. You have a different lens in which to plan and implement. Right, so it's probably going to look a little bit different for everybody because it's where did you start and where do you want to end. (Kim)

The initial lockdowns, and abrupt shift to distance learning, took a toll on many in the field of education—most in education, nearly overnight, had to adapt to new ways of teaching and learning. Educational leaders indicated that this time period should be utilized to experiment with new educational technology; flexibility and innovation was emphasized to ensure better educational outcomes for students. Essentially, the time period following the initial lockdowns was seen as a bridge to a future that may, or may not, include distance and blended learning as an essential educational pathway moving forward.

This finding highlighted several key aspects of K–12 distance learning during a time of crisis, particularly focusing on flexibility, innovation, and the potential for long-term changes in educational practices. For example, the need for flexibility and innovation in K–12 online learning through teachers' willingness to be adaptable and willing to experiment with new instructional methods has been well-documented in previous research (Archambault & Kennedy, 2014). Similarly, the comment about doing "human things with technology" aligns with research on the importance of maintaining a human connection in online learning environments (Borup et al., 2014). Further, the statement that "there is no one size fits all" in distance education echoes Barbour's (2019) description of the diverse models of K–12 online learning. Finally, the idea of using the

pandemic as an opportunity to experiment and potentially reshape education aligns with what some researchers have termed ‘emergency remote teaching’ (Hodges et al., 2020), essentially this period of rapid adaptation could indeed serve as a catalyst for long-term changes in educational practices.

### ***Moving Beyond the In Person Mindset***

The fourth theme identified by interviewees was honing in on the essentials. Respondents noted focusing on essential learning/standards, and the understanding that online and blended learning is truly different than in-person learning, was important. One respondent stated regarding essential/learning standards:

So, you know, kind of, kind of looking very closely, very critically, you know, at the content that you’re delivering through the lens of is this essential is this, you know, because, you know, knowing that our students aren’t going to be able to experience the same length or depth of learning, you know, in their households, as there are in their face-to-face environment. You know, kind of paring down the content towards that those skills and knowledge that are essential for their future experiences, whether it be in a course or in life in general.” (Todd)

A second respondent, when addressing the necessity to focus on essential content, stated:

So in our learning we are very much about not the content coverage but one of the schools and understandings. So what is the essential learning and that’s critical. So, as a teacher, we really need to be clear about what is the outcome we want for our students. And therefore, what are the steps and the activities will get our students to that outcome. Not what are, what is the range of fun activities that we can do or what is, what is the book saying around this? We’ve really got to put that to one side and think about what is it we want students to know, need to know, need to understand. I think that’s critical at this time, and so therefore how we’re going to teach tonight that happen. (Jeane)

Most respondents did not feel that all of a course’s content could be addressed within the short timeframe allotted to switching over to distance learning. The employment of the phrases “essential” or “paring down” indicates that learning needed to be quickly adjusted in the early days and weeks of the COVID-19 pandemic; it was emphasized that learning should not cease so much as be tailored to address the most salient content knowledge.

The research indicates that educators recognized the need to prioritize and streamline curriculum content when transitioning to distance learning. This aligns with existing literature on online and blended learning, which emphasized the importance of carefully selecting and organizing content for digital delivery (Moore & Kearsley, 2012). The concept of focusing on “essential learning/standards” suggests a strategic approach to content curation, where educators must critically evaluate what knowledge and skills are most crucial for students’ future academic and life success. Further, Todd’s statement about “paring down the content” acknowledged the limitations of the online learning environment, particularly in terms of the depth and duration of engagement possible compared to face-to-face instruction. This recognition was consistent with research on the challenges of maintaining student engagement in online learning contexts (Barbour & Reeves, 2009). Finally, the finding that most respondents felt unable to cover all course content in the limited time available for transitioning to distance learning is significant, as it underscores the research on emergency remote teaching that emphasized the importance of prioritizing essential content and skills when rapid transitions to online learning are necessary (Hodges et al., 2020).

### ***PREPARING FOR SIMPLY ‘REMOTE LEARNING’***

The third question asked interviewees “A second wave, or similar situation, may occur again in the future. What is some advice that

you'd give to school leaders to prepare in case this, or something similar, happens again in the future?"

### ***The Need to Plan***

The first theme identified by respondents was that having an emergency plan in place, and planning for a variety of outcomes, was crucial. One respondent, identifying the importance of creating an emergency plan going forward, commented:

The simple answer is, you know, we have emergency preparedness plans that that everyone's got for hurricanes for you know everything up to, you know, some of the most tragic incidents, I think we now realize that we need one of these. More importantly, I think what we realize is that the preparation for this is going back to the roots of how we design our classroom. Back to that as questions on the assessment. I think when teachers asked one of the questions were asking our teachers is what tools have worked well for you and I, when we say worked well and we're guiding these questions very carefully. (Dan)

As illustrated by this interviewee, respondents emphasized the importance of developing comprehensive emergency preparedness plans that incorporate lessons learned from recent experiences in classroom design and assessment.

While creating emergency plans was crucial, respondents also recognized that the initial implementation phase of distance learning served as a valuable learning experience, setting higher expectations for future preparedness and execution. A second interviewee, addressing the need to move on from the initial implementation of distance learning, stated:

But as an educational leader if you're not prepared for that happening you really haven't done your job. We'd all celebrate that ends up not being necessary at all, but you need to be prepared and the stakes are going to be higher for you as an educational leader. I think for a large degree schools were given a certain

degree of okay this came out of nowhere and you couldn't possibly be prepared. I think in many ways did a great job. But I think the expectations are, hey, that was your beta tester, your dry run and now we expect you to be ready and that may not really be a reasonable expectation. But I think the expectation is going to be there. (Matt)

This first theme emphasized the need to prepare emergency plans in the event that COVID-19 required further shutdowns and/or should a similar situation occur again in the future. It was expressed that while an initial trial-and-error period was expected, educational institutions needed to move forward with the creation of long-term distance learning plans. References were made by respondents to other disasters that had occurred in the past (e.g., hurricanes).

It is interesting that respondents referenced other disasters, as the need to plan for continuity of instruction through distance and online learning is nothing new. In fact, the need for effective online learning preparedness has been evident for years, particularly following health crises like SARS and H1N1 in many Asian nations (Barbour, 2010). However, even with previous experience and extensive preparation, these Southeast Asian countries struggled with online learning effectiveness and equality issues during COVID-19 (Balakrishnan, 2020; Gurr, 2020). Similar challenges have been observed elsewhere, with various countries facing school closures due to health crises, natural disasters, and extreme weather events (Alpert, 2011; Barbour et al., 2011; Baytiyeh, 2018; Borja, 2003; Jackson & Ahmed, 2020; Latchem & Jung, 2009; Miller & Hui, 2022; Rush et al., 2016; Samson, 2020; Schwartz et al., 2020). Despite previous experiences with remote learning, these jurisdictions did not demonstrate better preparedness during the COVID-19 pandemic. The increasing frequency of climate change-related events and personal health issues affecting student attendance further emphasizes the importance of preparing teachers for distance and online instruction (Black et al., 2022; Fernandez et al.,

2016; Thompson et al., 2012). This persistent gap in preparedness, despite numerous historical precedents, underscores the critical need for this kind of planning.

### ***The Need for Professional Development***

The second theme noted that professional development, and other salient training, was very important to educational leaders moving forward. One respondent, in identifying the need for ongoing professional development, stated:

Probably most places need to ramp up the type of professional learning they do. We've started, our IT and ed tech [sic] folks have started a series of webinars and are getting a lot of teacher buy-in for those, teachers have just been amazing in in grabbing on and running with it. I don't know that most people necessarily have a written plan for the fall, but I think that most are taking the learnings from what we've done and are moving forward with that. (Tom)

A second respondent, encouraging educators to move beyond emergency teaching, stated regarding professional development:

But then there are other things that we can do to make engagement, not just possible but likely and to keep our students engaged in the learning process. So I think that's one big piece is figuring out what is the PD that your teachers need in terms of both instruction and the tech tools to go with it. A lot of them have been learning on the fly and with love some actual calm, a time that is not emergency driven to learn these skills and practice them because they want to serve their kids. And that's really what great teachers do. (Elizabeth)

Respondents emphasized the importance of ongoing professional development to equip educators with the skills and tools necessary for effective remote instruction beyond the initial emergency response phase.

Building on the need for immediate professional development, respondents also highlighted the importance of incorporating blended learning training into long-term teacher preparation and induction programs to address future educational demands. A third respondent mentioned that this educational shift should encourage schools to reevaluate the professional learning needs of future teachers when stating:

But onboarding will be really important, not just for the students but for the teachers as well. New teachers make sure that when you have any kind of an induction program that you include some blended learning training in there because this is truly the future of where we're heading in education, pandemic or not. (Judy)

Overall, many respondents acknowledged the professional development needs of educators now teaching within an online and/or blended learning environment. Educational leaders, not knowing what the future would bring, emphasized the need for educators to be trained for a variety of future educational settings (e.g. in-person, online, blended). Finally, respondents noted that perhaps these types of professional development sessions may benefit all educators as the field of education further incorporates technology over time.

This finding highlighted the critical importance of professional development and training for educators. As Tom's statement suggested, many schools have initiated professional learning to support teachers in this transition (Trust & Whalen, 2020). This support often focuses on providing teachers with both pedagogical strategies and technological tools to enhance student engagement in virtual settings (Moore-Adams et al., 2016). These educational leaders emphasized the importance of preparing teachers for various instructional settings as crucial for adapting to future educational demands (Barbour & Hodges, 2024). Finally, existing literature underscores the importance that this professional learning focused on technology integration and online teaching strategies as benefiting all educators as technology

continues to play an increasingly prominent role in education (Ferdig et al., 2020; McAllister & Graham, 2016).

### ***The Need for Appropriate Tools***

The third theme centered on access to appropriate technology (e.g. hardware, reliable wireless internet), and other technical resources, was also very important. It was acknowledged that equity was a concern as well as it relates to the availability of hardware and internet access. This was also an important theme expressed for question 2. The first respondent, in addressing access concerns, stated:

So it's not like teaching, um, you know, the systems, but um it just becomes easier to transition, but one part of transitioning that obviously has to be taken into account is access issues. I think one thing that this pandemic has shown is that there's not equity of access across all communities. And so you can't play some expectation on students to be online if they don't have the basic equipment and conductivity. So those aren't easy problems to solve that needs to be part of your planning process. And as you're getting money I would definitely prioritize money in that way because like I said that's the base level. If you don't have the access if you don't have the conductivity, then nothing else really can matter. Obviously, in the end, it's the curriculum is the pedagogy that's most important. But it has to have that foundation for that to be something that you could do. (Matt)

Another respondent, in addressing equity concerns, stated:

Second thing I'd say adding to that is the two issues that we hear about more than anything else are first of all equity and access broadly defined. Whether that's Internet access, access to computers and other devices, as well as English language learners, special needs students, all those sorts of students and situations. So planning for them now as much as possible and using the time over the summer to prepare for that. (John)

The critical importance of addressing technology access and equity issues were highlighted by respondents, particularly for disadvantaged communities, as a fundamental prerequisite for effective remote learning implementation.

While technology access was a primary concern, respondents also emphasized the need for standardized and managed devices, highlighting the importance of not just providing hardware, but ensuring consistent and reliable technological infrastructure for all students. A third respondent, encouraging government in her home country to address access, said:

Government needs to ensure that every student in Australia has access to good internet and has access to a functioning proper internet enabled device. In our school we do that because we're an online school. Students are lent a laptop. We put up an image on so we know what's on the computer, we can actually therefore help students when something goes wrong. That's what they use, they have to provide their own internet but we make sure that there's a standard operating system for them that we manage and control. And I think we have to make that something that we do well. Australia's got lots of dead spots when it comes to internet we need to start doing something about that too. I believe the other bit about inequity, not an answer to your question, but it is an issue, I believe that moving to totally online moving to at home learning with parents' supervision. (Jeane)

Numerous respondents acknowledged that access to technology, and consistent internet access, was a concern for many school families. This issue has been acknowledged prior to the COVID-19 pandemic—its emphasis now is especially relevant though in an era increasingly reliant on students possessing the appropriate educational tools and technology to succeed. Finally, concerns regarding equity were expressed as it relates to meeting individual student needs via technology access.

This finding highlighted several critical issues in K–12 distance, online, and remote learning, particularly focusing on technology access and equity concerns. The study emphasized that access to appropriate technology, in-

cluding hardware and reliable internet, is crucial for effective remote learning (Crompton et al., 2021). Additionally, the research highlighted significant disparities in technology access across different communities (Reich et al., 2020). The interviewees' went beyond merely providing hardware, emphasizing the need for standardized and managed devices (Wharton-Beck et al., 2024). This approach can facilitate troubleshooting and ensure all students have equal access to learning resources. Both the study and the existing research suggests that without tackling these basic challenges, the potential benefits of K–12 online and remote learning may not be fully realized.

## **CONCLUSIONS AND IMPLICATIONS**

The goal of the second series of “5 Minutes On K–12 Online Learning With...” interviews was to help educational leaders better navigate the uncertainties of the upcoming school year. The purpose of this study was to examine that advice to equip educational leaders with specific guidance on how to improve their ability to adapt to changing circumstances and plan for future disruptions. The first content-based question focused on advice for school leaders in terms of accommodating the unusual nature of this particular school year. First, interviewees stressed the need to collect student input, analyze what worked and what didn't, and apply those insights to improve upcoming lessons. Second, interviewees also felt that straightforward and regular updates were vital to ease their stress and help them adjust to the quick shifts in teaching methods as schools moved online. Third, interviewees stress how the time period following the initial lockdowns was seen as a bridge to a future that may, or may not, include distance and blended learning as an essential educational pathway moving forward. Finally, the interviewees the interviewees underscored the phase after the first shutdowns was viewed as a transition, potentially leading to a future where online and

hybrid teaching methods might become a key part of education going forward, though this outcome remains uncertain.

The second content-based question focused on advice for schools leaders to allow them to better prepare for a similar situation in the future. First, interviewees primarily emphasized the critical importance of creating a crisis strategy and preparing for various scenarios. Second, another key point interviewees raised was the vital role of ongoing teacher training and relevant skill development for school administrators in the future. Finally, interviewees focused on the critical need for suitable technological tools, such as computers and dependable internet connections, along with other essential technical support. Essentially, study aimed to glean lessons learned from emergency remote learning during the COVID-19 pandemic from educational leaders. Those leaders emphasized the importance of reflection, communication, innovation, and focusing on essential learning during this transition. They also stressed the need for better preparation, ongoing professional development, and addressing technology access issues for future remote learning scenarios.

While the interviews for the second series of “5 Minutes On K–12 Online Learning With...” were conducted in the Spring and Summer of 2020, with an eye to the 2020–21 school year, there has been convincing evidence that even in a post-pandemic world the guidance is still relevant. The COVID-19 pandemic underscored the importance of teachers' ability to deliver online instruction, but this need has existed for decades due to various disruptions like natural disasters, epidemics, and extreme weather events (Baytiyeh, 2018; Mackey et al., 2012; Milman, 2014; Rush et al., 2016; Samson, 2020; Schwartz et al., 2020; Swetlik et al., 2015; Watkins, 2005). Even as the pandemic subsides, the likelihood of prolonged, widespread school closures remains. Closures could be caused from new health threats, extreme weather, or human-caused events like sociopolitical unrest. This reality raises questions about ensuring continuous, effective in-

struction during future closures. As such, succinct guidance for educational leaders on how to prepare for the seamless transition between in-person and remote learning in case of future school closures is of critical importance.

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