

Before the Storm: How Families were Supported for the Transition to Distance Learning

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Abstract: During Covid-19, the amount and quality of preparation for remote instruction has varied greatly across the country. This poster presents findings from a remote diary study that captured a diverse set of families' experiences adapting to remote learning when schools closed in the Spring of 2020. We found that just increasing access to digital resources was not enough; regular, clear, streamlined communication between schools and caregivers was critical to smoothing the transition to distance learning.

Keywords: families, Covid-19, distance learning, diary study, home-school communication

Introduction

The sudden closure of school buildings around the United States due to Covid-19 laid bare the ongoing cost of digital inequities as districts scrambled to finish out the school year remotely. At least 300,000 teachers and fifteen to sixteen million students lack what they need to participate in high quality distance learning (Chandra et al., 2020). These consequential gaps particularly affect lower income, underrepresented minority, and rural families, and must be understood in terms of overlapping, multidimensional sources of inequity in access to learning opportunities (Nasir et al., 2020). How technology is used for teaching and learning has also varied greatly during the pandemic. Pre-pandemic, schools were differentially providing creative and inquiry learning experiences, adding to differences that already occur as a function of family resources (Warschauer & Matuchniak, 2010). Technology in less-affluent schools often features "individualized" progression through workbook-type activities and multiple-choice test practice questions, whereas in affluent schools, technology is frequently used to explore, create, and develop presentations of learning in discussion with peers and teachers (see Darling-Hammond, Zielezinski, & Goldman, 2014). Given the central role of schools in determining access and use of technology, we share preliminary insights into how families were supported by schools to transition to remote learning.

Methods

For two weeks in May 2020 we collected daily documentation from 109 families across the US with children aged 5-10 (grades K-5) using dscout, a smartphone-based remote qualitative research platform (see Barron et al., 2021). Participants were selected from the dscout panel, equally distributed by household income brackets (<\$50K, \$50-99K, and over \$100K). They lived in 28 states, and 55% identified as White, 16% Black, 15% Hispanic/Latinx, 9% Asian, and 4% Middle Eastern/North African. Each selected one child in grades K-5 to focus on in the study (53% were K-2). Caregivers completed 5 mixed methods questionnaires designed to understand the resources and support they received from their child's school before and after the pandemic started, what remote learning looked like for their child, how their family was learning about Covid-19, and the social and emotional impact of the pandemic. We use descriptive quantitative and qualitative grounded theory coding to analyze the responses and gain insights into how families were prepared to handle the transition to distance learning.

Findings

Overall, 44% of participants indicated that they thought they were able to transition well to distance learning, and the results did not differ significantly by income. As displayed in Table 1, the number of digital resources available to families increased after the pandemic. Before the pandemic, higher income families were more likely to report online work required in their child's school (27%) compared to lower income families (5%), suggesting that they may have been better prepared to make the shifts necessary when all learning went remote. After schools closed, higher income families were more likely than lower income families to report having synchronous classes ($X^2 = 8.13, p = .017$), individualized messages from teachers ($X^2 = 8.68, p = .013$), and access to teacher-recorded video content ($X^2 = 6.78, p = .034$).

Table 1: School Provided Supports for Learning Online at Home; Before and During Covid-19 (N=109)

Reported supports	Before		During	
	N	%	N	%
Teacher-led lessons				
Realtime classes or meetings using video	11	10.1%	91	83.5%
Teacher pre-recorded videos of educational content	6	5.5%	64	58.7%
Assignments				
Online assignments (e.g. websites)	36	33.0%	84	77.1%
Ebooks/Audiobooks	16	14.7%	33	30.3%
Pre-recorded videos by teacher	6	5.5%	64	58.7%
YouTube Playlists	13	11.9%	32	29.4%
Paper packets/books	85	78.0%	73	67.0%
Individualized communication				
Individual video or phone check-ins	7	6.4%	53	48.6%
Individualized messages from teachers via email	45	41.3%	87	79.8%
Devices				
Devices to use for learning at home (e.g. iPads, Chromebooks)	53	48.6%	75	68.8%
Hotspots (internet access) to use with devices	25	22.9%	25	22.9%

To understand what preparation made a difference for families, we examined the open-ended text and video responses from contrasting cases. Alma and Cara are mothers of 7 year-old, first grade girls who attend public school. Both mothers involved with their child's schooling before and after the pandemic started, and had markedly different experiences transitioning to distance learning. Through their cases, we see how regular, clear communication between the schools and caregivers was critical for the transition, as were coordinated plans for instruction and sufficient support for caregivers to help their children complete their work. In the poster session, we will go in depth on these cases to illustrate the importance of teacher-caregiver communication and synchronous connections in providing quality remote learning experiences.

Conclusion

Just like a major weather event, the Covid-19 pandemic is forcing families and schools to reckon with their emergency preparations for long-term, traumatic disruptions to student learning. In this poster, we described how understanding the distribution of physical resources is not enough to address equity; the social infrastructure surrounding the resources is critical for a smooth transition between in-person and remote instruction, such as the quality of home-school communication. These results need to be put into the broader context of national conversations about growing inequities, trauma, and an urgent need for reimagining educational environments. The current moment offers challenges and opportunities for growth. As researchers, caregivers, and educators move forward, novel forms of collaboration and interdisciplinary approaches to knowledge creation and design for learning will be needed.

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