A Whole New World: PreK-12 Teachers' Perceptions of Instruction during a Pandemic

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Abstract: This paper explores educators' perceptions about professional and personal challenges and successes with virtual instruction, along with their concerns about the impact on students and student learning in a virtual environment during the COVID-19 pandemic. Teachers from seventeen school systems in Tennessee and Alabama were invited to participate in the study with sixty-seven participants completing surveys. A phenomenology design model was used, and In Vivo Coding was conducted to analyze the data. Results revealed four main themes related to teachers' experiences with virtual learning: personal perceptions, instruction, impact on students, and communication. Discussion of the results and their implications are addressed along with limitations and recommendations for future research.

On March 11, 2020, the World Health Organization (2020) declared the COVID-19 outbreak a global pandemic. As schools across the United States began to close their buildings in order to reduce community spread, teachers were thrown into a new world of virtual teaching. As they began to adapt, school systems established options for asynchronous and synchronous instruction. With the pandemic continuing into the fall, some schools opened with virtual learning only, and some with hybrid options, allowing part of the student body to return in person while the rest either attended on another day or logged in virtually. Ultimately, with this colossal change, teachers have needed help and support with a transition to remote learning and digital tools (Ferdig et al., 2020).

The Transition to Remote Learning

Options for Virtual Learning

One foundational question with switching to virtual learning was if instruction would be offered as asynchronous or synchronous. Some advocated the use of asynchronous learning due to its flexibility and the control it gives students (Daniel, 2020; Vu et al., 2020). In this instructional space, teachers take a role of facilitator as they guide students through independent learning (Shamir-Inbal & Blau, 2021). Daniel (2020) specifically states how this mode of instruction could also allow students to use any extra academic time for helping with community service needs. Other situations warranted asynchronous instruction because students had limited to no Internet connectivity. In cases where a digital platform could not be accessed, educators were forced to offer non-digital, asynchronous learning through the distribution of paper packets (McHaffey & Kinard, 2020).

For school systems and families that had access to broadband, educators often chose to employ synchronous instruction through video conferencing technology. Studies have shown the use of video conferencing can support teaching and learning (Maher, 2020). This format allows for real-time communication from any location equipped with Internet connections and hardware. This mode of instruction allowed for an environment most similar to traditional classroom spaces since it allowed two-way discussions, real-time presentations from teachers and students, and ways to collaborate when small group, breakout rooms were used (Shamir-Inbal & Blau, 2021).

Adaptations to Virtual Learning

As teachers adjusted to teaching in a digital format either asynchronously or synchronously, they needed to find tools to support this new mode of instruction. As they worked to acclimate to the massive instructional change, some teachers used social media as a way to find ideas and professional support (Carpenter et al., 2020). Others had support through professional development offered by local universities (Hulon et al., 2020) or through webinars (Shin & Borup, 2020). Still others joined forces with coworkers to create self-initiated professional learning communities (Song et al., 2020). However, Richmond et al. (2020) noted that homeschooling groups and other community institutions had experience to share, yet few educators sought out their expertise. Finally, Goddard et al. (2020) stressed the importance of teachers talking with other teachers about beneficial technology tools since the myriad available could be overwhelming.

Issues with Virtual Learning

Researchers began to focus on concerns with virtual learning almost as soon as the pandemic began. Many challenges stemmed from schools' and students' lack of technology resources and the inequitable distribution of these resources (Cardullo et al., 2021; Carey et al., 2020). Often, lack of quality Internet availability was specifically cited in research as having been a major issue with the immediate change to remote teaching (Cardullo et al., 2021; Trust & Whalen, 2020). Other problems included the lack of teacher training and experience with remote teaching techniques (Shamir-Inbal & Blau, 2021; van der Spoel et al., 2020) and how many teachers were learning to navigate new instructional platforms while concurrently teaching with them (Cardullo et al., 2021). Often, a lack of student motivation and engagement was an obstacle as teachers tried to adjust instruction to a virtual learning platform (Cardullo et al., 2021; Shamir-Inbal & Blau, 2021). On a personal level, the emotional toll of the pandemic impacted teachers' ability to cope and continue with normal daily work. Carey et al. (2020) found teachers' instruction was affected by their "need to address student stress and trauma" as well as their own "stress, apprehension, and feelings of isolation" (p. 251).

It is clear that there is still much to learn about how teachers adapted instruction during the pandemic (Trust & Whalen, 2020). The purpose of this study is to share educators' perceptions about challenges and successes with their instruction during the COVID-19 pandemic. Knowledge in these areas will help teachers plan for future related circumstances, as well as help those in higher education prepare future educators for similar experiences. The following research question guided this study: What were PreK-12 teachers' perceptions of their instructional experiences during the 2020-2021 school year pandemic?

Method

A phenomenology design model was chosen for this study since the theoretical framework of phenomenology seeks to explore human experience. Creswell (2013) states a phenomenological design is best for "understanding and describing the essence of an experience" (p. 104). Likewise, Smith et al. (2009) relate that when using phenomenological research "our attempts to understand other people's relationship to the world are necessarily *interpretative*, and will focus upon their attempts to make meanings out of their activities and to the things happening to them" (p. 21). Since this study focused on exploring teachers' experience of teaching during a pandemic, this methodology was deemed appropriate.

By its nature, data grounded in this design are permeated with reflections and personal perceptions. As van Manen (2001) states:

> The point of phenomenological research is to "borrow" other people's experiences and their reflections on their experiences in order to better be able to come to an understanding of the deeper meaning or significance of an aspect of human experience (p. 62).

To implement a phenomenological study, researchers "create context in which participants are encouraged to reflect" and describe their lived experience in as much detail as possible (deMarrais, 2004, p.56). With this study, teachers were told to focus specifically on their time teaching during the pandemic, creating a common context from which all of their responses were drawn.

It is important to note that phenomenology also acknowledges that lived experiences cannot be fully shared or understood. Since individuals embody their own experience, there is no way to completely understand another's lived experience. Smith et al. (2009) state it this way, "While we can observe and experience empathy for another, ultimately we can never share entirely the other's experience, because their experience belongs to their own embodied position in the world" (p. 19). Therefore, phenomenological research does not seek to find an ultimate

truth but strives to discover the essence of an experience that makes it relatable. Though we cannot fully relate to the teachers' description of their experiences with pandemic teaching, as we analyze their responses, we can examine and compare their reflections to find a shared essence of their lived experience (Marshall & Rossman, 2016).

Participants

Recruitment and Description of Subjects Criterion sampling was used to solicit subjects from 10 school systems in Tennessee and seven in Alabama which included urban, suburban, and rural geographic areas. Criterion sampling is used in qualitative research to study cases that meet a predetermined criterion, in this situation virtual teaching, in an effort to further investigate the cases (Patton, 2015). School systems were selected based on knowledge that at least some schools were teaching virtually. Emails were sent to the Director of Schools in each system explaining the study, along with a request to forward to teachers the email which included the survey link. Two additional email reminders were sent to directors with a request to forward prior to the deadline for submission.

Sixty-seven PreK through grade 12 teachers participated in the study. See Table 1 for more specific grade level information. As mentioned above, school systems were selected due to knowledge that many were teaching with some type of virtual component. Due to the anonymous nature of the surveys, there is no certainty all systems executed virtual teaching, but all were operating during the pandemic.

Sample Demographics Seventy participant surveys were returned, but three surveys answered only demographic information. These were removed from the sample and the remaining 67 were used for analysis. The participants' (n=67) instructional areas included pre-K; elementary, middle school, and high school content areas; special education; alternative school; and school psychologist. The specific breakdown for the "Other" category in Table 1 includes: 3 participants each for music, PE, foreign language, and special education; 2 participants each for technology, CTE health sciences, and alternative school; and 1 participant each for ACT prep, school psychologist, drama, Navy JROTC, and PLTW engineering. A substantial percentage of participants reported working in a rural setting (86.6%) and with a low socioeconomic status population (74.6%). Likewise, a majority of participants had been in education for more than 10 years (61.2%) and more than half (56.7%) noted they were currently implementing hybrid instruction—a combination of in-person and virtual.

Table 1
Demographics Data of Participants

Years of Teaching	< 3 (n=5, 7.5%)	4-7 (n=8, 11.9%)	8-10 (n=13, 19.4%)	11-15 (n=10, 14.9%)	16-20 (n=5, 7.5%)	> 20 (n=26, 38.8%)
Grades Taught*	PreK-K (n=10, 14.9%)	1-3 (n=15, 22.4%)	4-5 (n=15, 22.4%)	6-8 (n=22, 32.8%)	9-12 (n=25, 37.3%)	Other (n=4, 6%)

Subjects Taught*	Elementary (All Subjects) (n=13, 19.4%)	Reading/ELA (n=15, 22.4%)	Math (n=14, 20.9%)	Science (n=10, 14.9%)	Social Studies (n=10, 14.9%)	Other (n=23, 34.3%)?
Degree Earned	Bachelor's (n=27, 40.3%)	Master's (n=32, 47.8%)	Education Specialist (n=5, 7.5%)	Doctorate (n=3, 4.5%)		
GeographicArea	Rural (n=58, 86.6%)	Urban/City (n=8, 11.9%)	No Response (n=1, 1.5%)			
Populations Served*	ELL (n=28, 41.8%)	Gifted/Talented (n=27, 40.3%)	Learners with Disabilities (n=43, 64.2%)	Low SES (n=50, 74.6%)	Other (n=3, 4.5%)	
Taught Mostly	Face-to Face (n=26, 38.8%)	Hybrid (n=38, 56.7%)	Remote (n=0, 0%)	Other (n=3, 4.5%)		

*Note that some participants reported teaching multiple grades, subjects, and populations.

Data Collection Approval for the study was obtained from the Institutional Review Board at the researchers' university. To begin the data collection process, emails were sent to Directors of Schools to acquire permission for employee participation. Permission was granted once the Director forwarded the email with the survey link to potential participants. All participants voluntarily gave informed consent.

Anonymous surveys were collected through Google Forms. The survey consisted of a one-page consent form, questions to ascertain demographic information (see Table 1), and six survey questions. Open-ended survey questions were used to give participants an opportunity to answer questions in detail, possibly providing more accurate information and better insight into their thinking. Questions included:

How do you feel about your teaching during the 2020-2021 academic year?

How did your instruction change, if at all, during the 2020-2021 academic year compared to previous years?

In what ways, if any, did your instruction stay the same as previous years?

If you encountered challenges during the 2020-2021 academic year related to your instruction, how did you address them?

What new knowledge, skills, and strengths did you develop as a result of teaching during a pandemic?

If not described earlier, what new resources worked for you during the 2020-2021 school year?

Data Analysis

Data analysis was a collaborative and iterative process completed by the research team. Throughout the data analysis process, the researchers engaged in extensive discussions related to key findings in order to establish investigator triangulation (Carter et al., 2014). Specific steps taken included all three researchers independently coding the first 10 surveys before discussing emergent codes. Then, the next 15 surveys were independently coded, which was followed by more discussion and checking again for consistency and confirmation of findings. Finally, all 67 surveys were coded and discussed as a team. The 67 surveys were coded by hand. According to Nelson et al. (2021), this method of analyzing qualitative data allows for more flexibility when the area of interest "is a new multifaceted social issue unfolding in real time, for which settled and durable cultural frames are unavailable" (p . 207), such as gathering educators' perceptions of teaching during a global pandemic.

Creswell (2013) explained that phenomenology includes searching for notable statements and descriptions capturing the essence of the phenomenon; therefore, an inductive approach to data analysis was selected. Inductive coding involves researchers developing codes based on the data rather than beginning the coding process with predetermined codes (Medelyan, 2021). The initial phase of data analysis was conducted using In Vivo Coding which involves identifying key words that come directly from participants. It is important to note that during this phase researchers do not attempt to interpret the meaning of what was shared (Delve: The Essential Guide, n.d.). As an example, one participant shared, "It is an overwhelming amount of work to try to keep up with in-class students and virtual students plus doing lesson plans and slideshows that students who you never see can understand." From this direct quote the research team identified "keeping up with in-class students and virtual students" as an In Vivo code.

Once the In Vivo Coding process was completed, the research team began to identify emergent themes from patterns stemming from participants' responses (Saldana, 2011). Fifteen emergent themes were identified. Examples of emergent themes and the number of times they appeared included *communication with parents/students (n = 23), lack of student engagement (n = 19), heavy prep load (n = 19), reliance on instructional videos (n = 17), Internet issues (n = 7), no group work (n = 10)*, and *new tech skills (n = 33)*. After looking holistically at the most prominent emergent themes and determining which could be collapsed, the research team ultimately identified four main themes that spoke directly to the research questions. These four themes included *personal perceptions*, *instruction*, *impact on students*, and *communication* and will be described in detail below.

Results

PreK-12 teachers' perceptions of instructional experiences during the 2020-2021 school year pandemic primarily revolved around the onset of virtual learning. Four main themes emerged related to virtual learning that included *personal perceptions, instruction, impact on students*, and *communication*. Each of these themes is presented below.

Personal Perceptions

In general, PreK-12 teachers' perceptions related to virtual learning were negative. One challenge reported by numerous teachers was the time and effort required to teach both in-person and virtual students. One teacher

shared, "Making the videos and grading the online work has essentially added half again as much planning as I was doing last year." Another stated, "It is an overwhelming amount of work to try to keep up with in-class students and virtual students plus doing lesson plans and slideshows that students who you never see can understand." The issue of connecting with virtual students was also cited by several teachers. "Finding time to connect to my virtual students has been difficult, as I have classes full of traditional students needing just as much help as ever." Another teacher responded, "My greatest challenge teaching remotely has been to create a connection with the students. This is a problem I'm still working to resolve. I am not at all sure there is a solution."

Another difficulty raised by numerous teachers included the impact of virtual learning on their instructional practices, causing some to question their effectiveness as teachers. As one shared, "My teaching was patchy, not fluid. Large adjustments had to be made and reformatting of info for students based on their location (traditional setting or virtual) was extremely time consuming." Another said, "I feel as if my teaching was more trimmed down and focused yet unappreciated. I feel I am doing more than ever, but students/parents/admin still act as if it is not enough nor good enough." Yet another teacher wrote, "I have cut out the 'extra' (often more fun) activities because there hasn't been time for those things."

While most teachers expressed frustration due to the challenges related to virtual learning, some did cite positive changes they experienced during this time. One positive change often mentioned was new or improved technological skills. "It [virtual teaching] challenged me to utilize technology in my lessons as well as find ways to engage students when they have to stay in their own seats for a 90-minute period," one teacher shared. Similarly, another stated, "I definitely gained technical knowledge!!! I learned how to adapt to many changes and force myself to learn things that I had put off in the past."

The onset of virtual learning created additional stress and uncertainty for many PreK-12 teachers who participated in this study. Several indicated that 2020-2021 had been the most challenging academic year of their teaching career. One teacher even shared the challenges stemming from the COVID pandemic were causing her to retire. Although many PreK-12 teachers' perceptions related to virtual learning were negative, one teacher described the choice she made at the beginning of the year, "I entered this year with a mindset of growth and flexibility. I knew it would be a year like I had never taught. I could either approach it with negativity or I could find a way to let it strengthen me."

Instruction

PreK-12 teachers also provided information on how their instruction changed, if at all, during the 2020-2021 academic year. While some indicated their instruction did not change, other teachers described changes as they related to content taught, use of technology, and ability to engage in collaborative learning opportunities.

With regard to the actual content taught, one teacher shared concerns stemming from the pandemic's initial spring 2020 impact, "I also had to make sure to focus more time on the standards the students missed the previous school year due to school closures." Another teacher said, "My instruction really didn't change, but it was harder to teach children who were remote learners. I have not been able to cover all of my standards in a routine manner." Pacing of content taught was another concern with one teacher stating, "I have had to slow down and cannot cover as much material." Another wrote, "Pacing was slower. Teaching virtually slowed me down."

As would be expected, the onset of virtual learning created the need for PreK-12 teachers to incorporate more technological tools within their instruction. A common tool described by numerous PreK-12 teachers was the use of G Suite (currently known as Google Workspace) which includes Google Classroom, Google Meets, Google Forms, etc. "I have never made videos and posted all assignments in Google Classroom before. I like having the videos, as students who are absent can make up the work without a lot of repeated effort from me." Another teacher shared, "I present everything through a slideshow in Google Classroom—even the face-to-face learners. That way, when someone is quarantined or we go virtual, everyone knows the procedures and what is expected."

While using a platform such as G Suite has its benefits, some teachers were required to alter their presentation of the material. For example, "I use more Google Forms for responses because I don't have time to grade open-ended questions/papers." Availability of technology has also created problems for work/life balance as described by one teacher,

> Due to the school system's expectation for using parent communication systems (Google Classroom, SchoolStatus, and Remind), I feel that I am rarely "off" of work. Parents may contact us 24 hours a day, 7 days a week. Most are fairly respectful of our time; however, several parents feel that they have a right to contact me as they please (12:13 am just last night).

A major challenge cited by numerous PreK-12 teachers was the impact the COVID pandemic had on collaborative work and hands-on instruction. One teacher shared, "My teaching style had to change from a lot of group work, partner work, and projects to individual student work and whole group lessons and activities."

Technical or applied courses were also negatively impacted. Another teacher wrote of his in-person instruction, "Some of my classes have a hands-on component/labs. I was not able to conduct many of those due to trying to social distance students." Another stated:

> I have challenges daily teaching a hands-on class with virtual students. I keep getting told to use computer simulated programs. In aerospace engineering, for example, would you allow a pilot to learn to fly on a simulator and then put them in a plane to solo? I am a pilot and can tell you it is completely different! Concepts sound great, but are not working. I am bringing students in after school hours on my own time so they can complete some of the hands-on labs.

Developmentally appropriate instruction was also difficult through virtual learning as reported by a PreK teacher who shared, "I have had to find ways to include virtual learners. Less hands-on for them and more worksheets which I feel is not developmentally appropriate for PreK, but was unsure of what other options I had in order to teach the skills to them that in-school learners get during center time."

Impact on Students

While PreK-12 teachers described challenges to their instructional practices and perceived effectiveness, they also acknowledged the negative impact virtual learning had on their students. Lack of student engagement was cited by numerous PreK-12 teachers with one stating, "The challenge that I have encountered the most is getting students invested in their learning, especially the students who chose to be remote learners." Another shared, "Some students who are virtual never complete any assignments, and I can do nothing but turn them in to school administration—and they are limited in their responses as well." Some PreK-12 teachers felt the only way virtual students could be successful was if they had parents who were dedicated to ensuring that student work was completed and turned in. For example, one teacher shared, "I feel during the pandemic, students who stayed virtual struggled with getting work done. Unless they had a parent who closely monitored their work, they did not get anything done. It takes a lot of discipline to complete work on their own virtually."

Many teachers expressed their belief that virtual students would likely fall behind their peers who were attending school in-person. "I feel the face-to-face students received the best of the teaching including hands-on learning. I feel my virtual students, due to the nature of the class, will be behind when they return to in-class options." Another teacher noted:

> The biggest challenge has been getting virtual students to work in a timely fashion. They do not follow the intended sequence of instruction and practice, and parents or other adults are doing a lot of the work. I have done a lot of emailing and phone calls, but my guess is that when these students return to an in-class environment, they will be lost!

It was apparent many teachers were concerned that their virtual students were struggling more than their in-person peers. Despite their best efforts, some teachers expressed frustration with the current situation with one teacher sharing, "It has been very stressful. It is hard to see the loss of learning."

While some virtual students chose to not fully engage in their lessons, other students were limited due to unreliable Internet access. This challenge caused some teachers to get creative in order to get the work into their students' hands. For instance, one teacher reported she purchased flash drives and recorded her lessons so virtual students could still listen to her teaching lessons. Another teacher explained,

> Fifty percent of my class did not have access to reliable Internet at home and many of our working parents could not spend the hours needed for a child to sit in a public parking lot to watch videos or complete assignments. This meant during virtual weeks, my coworkers and I spent many hurried hours creating and printing resources for our students to use at home.

Communication

Perhaps one of the most significant changes PreK-12 teachers reported experiencing during the 2020-2021 academic year was increasing the communication they had with their students' caregivers. One teacher shared:

> I felt as if sometimes I spent as much time educating, counseling, and meeting with parents as I did their students. On the more positive side, I found a new strength in my learned flexibility, and I also took advantage of the situation to maintain close communication with my parents.

Another teacher shared, "I have communicated with parents more often than I have ever done so in the past! Keeping parents informed (especially when students are virtual) has been the key this year."

PreK-12 teachers also took advantage of opportunities to communicate and collaborate with colleagues in order to obtain much needed support while teaching during the pandemic. Sometimes this entailed working within grade teams from schools across the system to develop virtual content that could be used by every teacher in that

grade. Other times, teachers collaborated with their peers to support students with diverse needs who were struggling with less hands-on instruction (e.g., special education teachers). A teacher summed up this collaboration by stating:

> I am blessed to have amazing coworkers! We have collaborated often and not just in our particular subjects or grade levels. I have not always had this opportunity in my career, and I am so very thankful that I have had my work family this year!

Summary of Results

In sum, this study sought to explore how PreK-12 teachers perceived instructional experiences while teaching during the pandemic of the 2020-2021 school year. Results revealed four areas primarily focused on virtual learning: personal perceptions, instruction, impact on students, and communication. Teachers reported difficulties in general with teaching during the pandemic which included the increased use of technology and concerns with pedagogical effectiveness. Instruction was another area teachers cited regarding their ability to cover less content and lack of collaborative and hands-on options with virtual teaching. Teachers also shared how some students were not engaged with class due to virtual environments, which they felt would lead to learning loss. Finally, communication with parents and peers was an area teachers shared had increased due to teaching during the pandemic.

Discussion

The study's findings reveal that teachers' perceptions of teaching during the 2020-2021 pandemic could be considered in four areas: personal perceptions, instruction, impact on students, and communication. From the teachers' responses, each of these areas was primarily focused on virtual learning. The following section discusses these findings and the possible implications as this school year ends.

How Might This Year Impact the Profession?

Most teachers surveyed for this study shared negative perceptions regarding their instructional experiences during the 2020-2021 school year. Main concerns were preparation for instructing students both in-person and virtually and the effectiveness of instructional plans. Though many also reported the positive aspect of gaining new or improved skills with technology, overall, general comments referred to the challenge and struggle of teaching during a pandemic.

As teachers complete this difficult year of instruction, there is cause to wonder if there will be teachers who will choose to leave the profession. Prior to the pandemic, teachers were reporting some of the highest daily occupational stress levels (Gallup, 2014) which has been cited along with other reasons teachers are leaving the profession (Eckert, 2021). The findings from this study cannot be attributed to all teachers' feelings and perceptions during the pandemic, but their foci are similar to causes of teacher shortages prior to the pandemic, such as challenging instructional environments and poor support for professional development (Garcia & Weiss, 2019). These personal perceptions could be harbingers of teacher intent; namely, one effect from the stress of the pandemic year could be the exacerbation of teacher shortages.

How Might Instruction Change?

Some teachers from this study reported their instruction did not change during the 2020-2021 school year, especially regarding standards and content, though their pacing had slowed. Many shared that they increased their technology use and found effectiveness through pre-made or personally created videos. Some noted a loss of effectiveness as they were hindered from using group work or manipulatives due to virtual formats. Teachers also reported little time to prepare for the switch to virtual learning, and some stated they knew their technology skills were lacking as the year began.

Although Ertmer and Ottenbreit-Leftwich (2010) argued over a decade ago that "effective teaching requires effective technology use" (p. 256), research has shown that some educators lack minimal competency with classroom technology (Artacho et al., 2020; Howard et al., 2021). As the pandemic year began, many teachers had no choice but to embrace technology as it became the main tool for delivering instruction. Some teachers received instruction in how to use these tools while simultaneously using them, so continued professional development with tech use in the classroom would be helpful even after the pandemic ends. Zhao and Bryant (2006) found teachers integrate more technology in the classroom if there is follow up mentoring after the training. Therefore, once

classroom instruction is no longer impacted by pandemic restrictions, mentor support could help teachers continue to implement beneficial technology.

Another implication for instruction after the pandemic could be that school systems in regions with broadband access will be more likely to utilize virtual learning in cases of student illness or homebound assignments. One drawback is that virtual instruction works well with some content areas, but others that rely on group instruction, differentiated instruction, or use of hands-on activities or manipulatives (e.g., science, math, special education) would still have difficulty offering effective instruction.

How Might Negative Impacts on Students Be Ameliorated?

Findings from this study reveal that teachers were concerned about lack of student engagement and possible learning loss from a year of virtual instruction. Lack of student engagement could have multiple causes, but some researchers have expressed concern for child and teen mental health due to pandemic social constrictions (Fegert et al., 2020; Hawes et al., 2021). Virtual schooling creates social isolation, and a lack of interaction among peers "can deprive youth and children of some social communications and socializations that are essential to learning, development and creativity" (Onyema et al., 2020, p. 112). A loss of routine, physical activity, and friendships, each possible side effects of virtual schooling, can likewise contribute to mental health concerns (Kamenetz, 2021). As educators and caregivers support students with the emotional and mental toll of the pandemic, experts encourage adults to be empathic and to help children and adolescents focus on positivity and mindfulness during their daily routines (Turner et al., 2020).

Students who have exhibited lack of interest through nonparticipation, missed assignments, or absenteeism more than likely have also fallen behind with learning benchmarks. One report found that at the beginning of the 2020-2021 school year, students were already three months behind in math skills and one and a half months behind in reading skills from the pandemic's spring 2020 onset (Dorn et al., 2020). Other assessment data released by the non-profit Northwest Evaluation Association in November 2020 suggested that student learning has not fallen as far behind as initially feared, but this report also found not all students were represented, especially noting less representation of those from marginalized communities (Kuhfeld et al., 2020).

Suggestions to mitigate major learning losses include 1) continued support for students from policymakers, educators, families, and communities as virtual learning continues, 2) use of assessment data to determine needed remediation work, and 3) collaboration of stakeholders to "understand potential policies and practice for recovery" (Kuhfeld & Tarasawa, 2020, p. 4-5). Potential techniques for recovery could include summer school, days added to the beginning or end of the next school year, and intensive tutoring.

How Might Communication with Parents and Peers Change?

Results from this study revealed that teachers have had more communication with parents due to the switch to virtual learning and that they reached out to communicate more with their peers regarding instructional challenges. Continued intensive communication with parents after the pandemic could be a very beneficial practice, as student achievement is positively impacted by parental involvement (Blanch et al., 2013; Green et al., 2007; Hindman & Morrison, 2011; Hoover-Dempsey et al., 2005). In this study, no data were collected regarding how parents experienced the increased communication from teachers, so parents would have to want to continue the increased communication for academic improvement to occur.

Teachers also reported increased communication with their peers to help navigate the difficulties involved with virtual teaching. This action could lead to positive results as well if continued after the pandemic. Park et al. (2007) found increased interactions between teachers improved their overall teaching and instructional reflection. Likewise, Kardos et al. (2001) noted that a school environment where veteran and novice teachers have frequent discussions and sustained support creates an ideal professional culture.

Limitations and Future Research

Limitations with this study stem from the anonymous surveys. Surveys were sent to 17 school systems in two states with varying geographic and economic backgrounds, but having no control over where surveys originated, more responses may have been submitted from one school/school system than others. This creates the potential for a sample that is not representative of the variety of teaching environments invited for this study. In addition, some informative demographics data were not collected, specifically gender, race, and ethnicity.

Regarding future research, new studies could explore teacher experiences based on various demographics with questions such as: Was it more difficult to engage young children virtually than older students? Was pandemic instruction more difficult for newer or seasoned teachers? How did the instructional experience differ based on teachers' subject areas (science vs. English/Language Arts)? Also, this study had a large majority of participants from rural settings which prompts questions for future research such as: How did teachers from rural settings experience pandemic teaching versus those in urban settings? Were there differences in resources, student participation, or parental communication? Quantitative data could reveal rural/urban comparisons between student attendance, percentage of homes with broadband, parent involvement, and student assessment scores. Finally, future studies could also consider the perspectives of administrators. Since they are responsible for providing support such as professional development and resources to pay for materials, one area to investigate could be if virtual teaching influenced administrators' intentions in these areas, either with their actions during the pandemic or with their consideration for future needs.

Conclusion

In sum, PreK-12 teachers' perceptions related to their instructional experiences during the 2020-2021 school year pandemic more often than not described the many challenges they faced. The COVID-19 pandemic was unprecedented in that neither teachers nor the field of education as a whole had a blueprint to follow in order to make the transition to virtual learning seamless. When asked to describe how she overcame some of the challenges she faced, a teacher shared: "One at a time. We worked through problems with as much understanding of everyone's differences as possible. It was frustrating, but humbling at the same time." This sentiment exemplifies the strength and determination of teachers who, when faced with a daunting task, rise to the challenge.

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