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The Virtualization of Schooling During the COVID-19 Pandemic

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Cover Page Footnote

Much attention has been focused on the need to return to traditional face-to-face learning. The sudden and unplanned shift to virtual classrooms and online learning during the Spring of 2020 confronted all engaged in educational settings. The time met everyone with unprecedented challenges to transition rapidly. This research conducted by final semester college students sought to examine how children, parents, and school staff were affected by the earliest stay-at-home requirements. The research combined textual analysis with survey research. Respondents (95) ranged from kindergarten-university aged students who were geographically dispersed throughout the U.S. Parental challenges were explored in which 67 parents with children in school were surveyed. Teachers and school personnel (71 school personnel) were also surveyed about their experiences with this transition. Results from across these three surveys will be discussed in the article, with particular concern for the impact on interpersonal communication traditionally found in school environments.

Virtualization of School During COVID-19

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Abstract

Schooling is driven by economic, political, societal, and cynical inclinations. Education has no rest, and it is continuous, even outside of the classroom. One thing that interconnects these terms together is a narrative. The narrative gives meaning to the world and exerts an end goal of success and happiness. Yet, the only way to reach this shared goal is through intrapersonal and interpersonal relationships. Undoubtedly, the technological landscape in the 21st century is robust and evolving. When a natural force beyond human control corrupts every aspect of society, such as a pandemic, these technologies are relied upon for human interaction. The coronavirus (COVID-19), a global pandemic, was recognized to sprout in the United States in February of 2020. Since then, the aforementioned end-goal of success and happiness was still pursued, but solely from the use of technological means.

The assumed order of society was rearranged, and interpersonal and intrapersonal relationships were altered. The coronavirus forced schools and campuses to shut down without warning as we suddenly zoomed into educational settings. By April 2020, 98% of institutions replaced the majority of in-person classes with remote learning. Institutions worldwide were forced to pivot on a dime to transition from the physical to virtual spaces requiring monumental adaptations. With the relatively quick shift to quarantine lifestyles, students, parents, and school personnel were blindsided and forced into a period of enormous adjustment. New ways of learning, teaching, and parenting were required seemingly overnight. Veteran teachers were asked to convert lessons and master new technologies. Parents were asked to assist their children while trying to obtain materials, needed technology and, for some, learn it themselves. Students were asked to devote their attention and screen time to lessons and learning apart from their classmates and teachers. The transition from classroom instruction to learning completely online learning was unprecedented.

As students of Mediated Interpersonal Communication, this situation offered an opportunity to try to understand the mediated environments we were

moving into and perhaps predict some of the ways the pandemic, which required a move toward greater reliance on media, has and will impact our future interpersonal relationships and our education. The research undertaken offers a snapshot in time during late March and early April 2020. The challenges and issues reported can inform future preparedness.

The approach to the interpersonal nature of education is rooted in the work of Neil Postman (1996), who argued for the need to address a fundamental question regarding what schools are for. The importance of schools in the process of socialization, interpersonal, and group interaction is at the heart of this study. This research reflects concerns about whether social distancing would lead to a lack of interaction in which children can learn about their environment and themselves. What would this shift to virtual classrooms mean to the parent and child relationship as children needed to rely on parents to help with their education more than usual? This research sought to learn how social isolation could change family dynamics and how the educational process could be hurting parents, students, and educators. We sought to add to our understanding of how the media can be altering our educational relationships in an age of social distancing.

Key words: Covid-19, school, virtualization

Introduction

Much attention has been focused on the need to return to traditional face-to-face learning. The sudden and unplanned shift to virtual classrooms and online learning during the Spring of 2020 confronted all engaged in educational settings. The time met everyone with unprecedented challenges to transition rapidly. This research conducted by final semester college students sought to examine how children, parents, and school staff were affected by the earliest stay-at-home requirements. The research combined textual analysis with survey research. Respondents (95) ranged from kindergarten-university aged students who were geographically dispersed throughout the U.S. Parental challenges were explored in which parents with children in school were surveyed (67). Teachers and school personnel (71) were also surveyed about their experiences with this transition. Results from across these three surveys will be discussed in the article, with particular concern for the impact on interpersonal communication traditionally found in school environments.

Methodology

Research Question 1: How have children, parents, and school staff been affected by the stay at home orders?

Research Question 2: How has interpersonal and intrapersonal communication been altered for these respective groups by being secluded to the home?

Through careful research, the questions aforementioned will be answered. Two primary methodologies were used: textual analysis and written surveys. A combination of qualitative and quantitative methods were relied upon. Surveys emphasized the questions of relevance for how COVID-19 has caused upheaval on the lives of students, parents, and school professionals. Beyond just statistical and numerical data per question, we allowed the respondents of each survey to elaborate through text-based responses for many of the questions.

Students surveyed ranged from pre-kindergarten to college. The intention here was to garner an understanding of the effect on all ages. Location, age, and gender all played a part in the survey distribution. We sought to better understand their demographic and technological experience in the classroom prior to the shift of online education. In the transitional based questions, it was important to recognize how children are adapting within their interpersonal and intrapersonal interactions. In addition, the ways in which their ability to learn has been impacted will be explored within the discussion and analysis. A total of 95 students responded to the survey from across The United States. With this, we garnered a significant amount of knowledge about the phenomena in question.

The second survey was to parents across the United States. Location and gender also played a major role in this survey. However, the additional question regarding what their highest level of education was sought to contribute to an understanding of the adjustments parents were forced to make in the transition of schooling and their level of media literacy. The number of offspring and age were also sought to determine the differences that exist amongst households. Parents were also asked about employment status and how that has changed to better understand their scope of responsibility. Also, the impact of the transition on the interpersonal and intrapersonal level of these parents is highlighted, and in return, how they see their kids being affected. A total of 67 parents were surveyed, and the responses were revealing.

Finally, we surveyed an array of school personnel including teachers, administrative assistants, and other educational workers based on the age group they work with. We were interested in learning how their original job duties and responsibilities were altered and affected during the COVID-19 pandemic and the early, unanticipated shift to virtual schooling. Further, we sought to determine the level of media literacy that each school professional

had as they seeked new ways to bring the classroom into the homes of their students.

Additionally, it was vital to question the student-school connection, and how the schools were supporting their professionals efforts from home. Not only was it important to identify how their interpersonal interactions have been altered, but it was critical to see how the behaviors of their students have changed in the classroom, especially from the perspective of school professionals. A total of 71 school staff members responded to the survey. Overall, the data collected from each of the three surveys revealed trends as to how the early days of the COVID-19 pandemic impacted the lives of students, parents, and school personnel. The primary goal of this research is to learn about reactions, experiences, and preferences for schooling in a mediated fashion, or face-to-face in a classroom setting.

Analysis

Student Survey Results

A majority of the respondents were from New York. Other respondents were located in Florida, Maryland, Pennsylvania, Virginia, Connecticut, and Massachusetts. The age of respondents ranged from 4-24 years old. A total of 66 of the 95 respondents were female. Further, 47 of the respondents were undergraduate and graduate students; 19 respondents were in ninth-12th grade; 12 respondents were in sixth-eighth grade; five respondents were in fourth-fifth grade; and 12 respondents were in kindergarten-third grade.

From these results, there was a wide range of student age groups surveyed. Sixty-six of the respondents reported that it was harder to do a full-day of school work from home. A majority of the students considered distractions as a significant component to having a hard time learning while not in the classroom. This, they indicated, was mainly due to a lack of proper workspace, having a hard time focusing and concentrating, and as a result, the students said they were less motivated to learn. Some students said they had too much screen time and do not like being in front of the computer all day. Additionally, the lack of breaks was said to add student stress and anxiety.

Asynchronous curriculum left little to no room for students and school personnel to have effective communication. One student mentioned, "It's hard to not have a teacher there to help you." Another said, "It is hard to pay attention when there is no teacher teaching you." Ultimately, the data revealed how it is relatively hard to focus with the lack of face-to-face schooling. Moreover, these findings showed that all households may not have

stable, fast WiFi, or proper technology. On the other hand, 22 of the students said that it was not harder to do school work at home. They noted that they had the ability to do the work at home and some even say it was faster and took up less time. Further, these students enjoyed being able to do work on their own pace and times and found learning easier for them. The few respondents that responded with "other," described how some days are harder than others to learn online and indicated they preferred some aspects of mediated schooling over other aspects. In answering the same question, "Is it hard to do a full-day of school work at home?", one respondent was indifferent and said, "Sometimes yes, sometimes no. I like being able to work at my own pace and being able to rewind the lecture recordings in case I miss something. But also, it's kind of like teaching yourself the material. My professors don't use a live zoom so it can be difficult to try to teach yourself something if you don't understand it." Evidently, it can be difficult to learn solely through mediated formats.

Students noted that they were able to communicate with classmates and teachers through different media platforms (Figure 1). Another question we found revealing indicated the communication methods students were using to interact with their teachers. This was particularly interesting in seeking to help us to better understand the interpersonal interactions that these students were, or were not, receiving with their school personnel.

Figure 1

Q7 - How are you communicating with your teachers and instructors? Check all that apply.
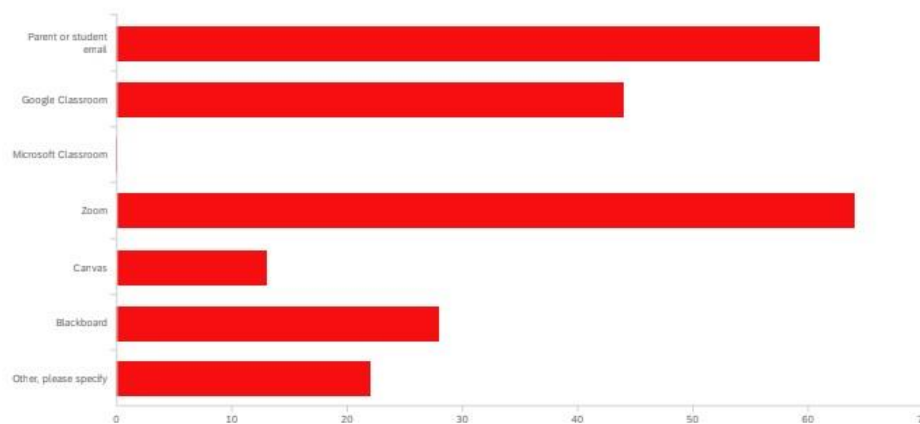
Today, there are a plethora of options for schools to consider when challenged with the transition to online schooling. A more concrete understanding of the interpersonal interaction among the respondents was concluded when we

asked how their weekly routine changed. Approximately 63% of students chose that they had the freedom to work on their schoolwork whenever they want (with a due date). The remaining students answered that they had virtual class at the same time that they would have in-person school. The difference in learning in an asynchronous and synchronous fashion ultimately defined the at-home learning experience. In both of these schooling strategies, there were issues that arose when students sought help from their teachers. A 22 year-old female student studying at Stony Brook University claimed, "Since my classes aren't using live zoom, it can become difficult to ask questions if you don't understand something. I feel like I'm able to obtain more information in a classroom setting." Interestingly, a 10 year old student was still having a hard time, and he was a student who attended school in the Jericho School District, a district ranked among the five best school districts in America in 2020 by *Niche.com*. Even with living in a neighborhood with many resources for online schooling, one fifth grader asked if he preferred learning at home or in the classroom, replied, "in the classroom." He asserted, "I get to see my friends and teachers and I get to have activities." We further concluded that even if a student learns in a technologically diverse and affluent, well equipped school environment, they are still having trouble with the transition to home.

A sweeping majority of the children surveyed, 90.43% have siblings. This is significant in that it uncovered further findings regarding how their schooling experience may differ because they may be receiving help from siblings. We also looked to this factor in determining levels of interpersonal communication at home, which could add to student happiness. The opportunity for interaction with other children at home, when missing this social interaction at school, was explored.

To further our examination of interpersonal communication, we found that the overall moods of the students have been altered for some. Thirty-nine percent (39%) of students reported that they were stressed due to the transition to online schooling. Four respondents reported that they were happy, and 16 respondents said that they felt sad. Further comments elaborated on a range of mood-changes. Many stated that they missed in-person school and human interaction. A few respondents stated that they were feeling mixed emotions, and that some days they were happier than others. One respondent stated, "I am kind of a mix between all of these, it really depends on the day and how much work I have", depicting how students may have experienced changes in moods due to this transition.

We conclude that no matter the age, location or gender of the students, all student respondents reported having a hard time with this transition. Many noted increased stress levels. A majority of students had a negative change in mood because of the lack of face-to-face interpersonal interactions. The mediated interpersonal forms of communication were not sufficient enough for these students to be happy. Another compelling finding is that a majority

of students said it is too hard to do school work from home, citing a lack of motivation. Those who do not have adequate access to technology and other supplies were finding it even more difficult to transition. A select few enjoy learning in a mediated fashion, mainly due to the ability to do school work at their own pace.

Most students were still able to communicate through the use of phones, social media, Facetime, Zoom, and other platforms. Ultimately, the lack of interpersonal communication in the school environment restricted and disabled an effective connection between the students and teachers and makes for a significantly harder learning environment. In sum, it is evident that students mainly prefer learning in the classroom with in-person interactions and find that it is easier to focus in an in-person classroom setting.

Parent Survey Results

Of the parents surveyed, similar to the student survey, a majority of respondents lived in New York. However, other respondents were from Pennsylvania, Delaware, Ohio, Florida, Colorado, Connecticut, Illinois, Alabama, Iowa, and Maryland. Over half (83%) of the parents that responded were female. The large majority of respondents had completed at least some college coursework, with many receiving a degree. However, eight of the 67 respondents reported high school or equivalent as their highest level of education. The impact of the parent's education levels will be explored with the possible links this may have to other findings.

Since schooling was taking place in the household, parents were forced to take on the responsibility of helping their children with their schooling. The levels of media literacy and technological proficiency played a significant role in the ability of parents to help their children interpret required online platforms for classes. A total of 63 out of the 67 respondents surveyed reported that they had at least some knowledge of technology, which is significant. It was particularly noteworthy to examine the responses of the four parents who said they had no technological capabilities, since this can be related to their stress levels and responsibilities during these times.

The number of children each parent had may have also impacted many variables during this transition. Many parents were confronted with helping children of multiple ages at once. Results were volatile and driven by the number of children each parent had. For example, an unemployed mom from Mt. Holly Springs, PA, with some college coursework completed, has five children ranging between the ages of 2-14-years old. She further claimed she is somewhat technologically savvy; yet, there were challenges. She said, "I have many children in all different grades and areas. All of them are not computer learner's so I have to sit with each of them and help them through their assignments. They are getting full school days worth of assignments and

it is very overwhelming for me to keep up and keep everyone on track." The participant concluded her sleep and eating habits have changed as a result. It is interesting to compare these findings with a mother of one child, another unemployed female responded stating, "We are getting better at communicating but it is hard to teach your own child. We see he gets frustrated because he is learning differently from when we went to school. We are trying to embrace this time to be more involved and keep to a schedule so he feels he has his free time." This showed how the amount of children each parent had impacted the transition. Ultimately, parents were still finding the responsibility of helping their children to be burdensome.

Q8 - How have you been affected by the switch to digital learning? Please check all that apply.
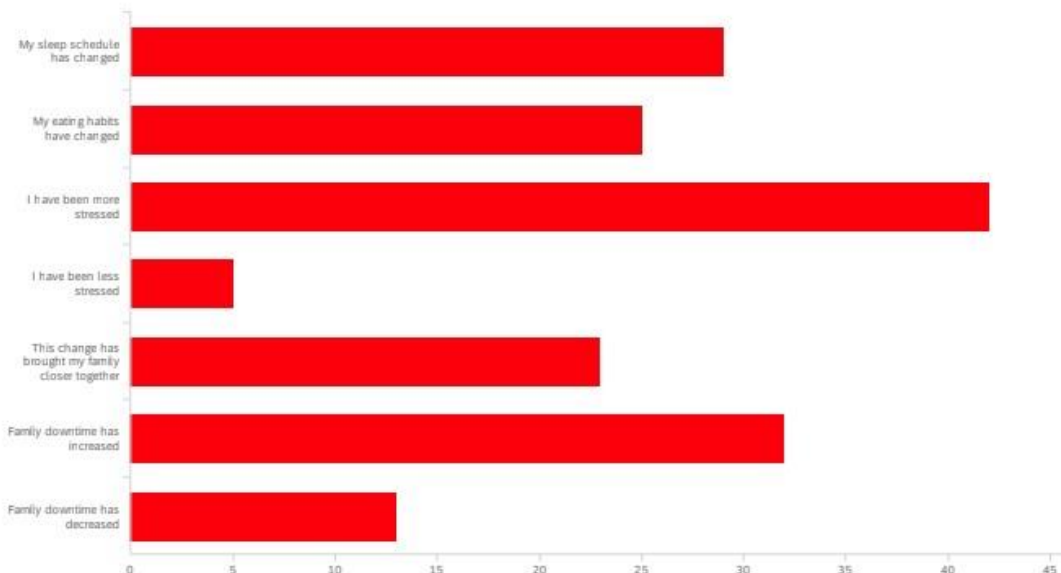
Figure 2

Primarily, parents and guardians expressed more stress due to this transition (Figure 2). Many respondents indicated that their eating habits and sleep schedules have changed. Interestingly, it is worthy to note that families from across the country responded that they had less family time due to the influx of at-home school work. The parents that are working from home were finding it difficult to effectively help their children with school work. Many of the parents believed that the curriculum changed with the transition and the

students were getting more work as a result. They concluded that it is harder to navigate, access, and figure out assignments in this mediated fashion.

It was clear in the responses that kids are self-sufficient due to previous media experience in the classroom. Therefore, age and location play a factor in being able to complete school work independently. A majority of the parents with children who were college-aged reported that they have been on their own to complete school work because they are self-sufficient enough to do so at their age level. When respondents were asked whether they saw a difference in their child after the shift to digital learning, a staggering 93.94% answered yes, illustrating the profound impact that quarantine can have on how students learn. These respondents explained how their children were experiencing a lack of interpersonal connection with peers their age, making them more irritable and less motivated to do school work. Parents also stated that their children were struggling with distractions while completing school work at home, making it harder for them to focus. A select group of parents expressed that their children have become lazy and are procrastinating more.

A contradictory, yet interesting finding, is the impact of the switch to digital learning on children with special needs. A mother of a child from Binghamton, New York, expressed that her 5 year old son is autistic. She said "he is incapable of staying focused during telehealth appointments or zoom meetings." Another mother of an autistic child from Florida described a contradictory opinion. She explained, "He seems happier. He is autistic and doesn't learn well in a crowded environment where he has to battle social awkwardness while trying to learn. He's excelling academically." She described how she has seen progress in him, which was not achieved in the face-to-face classroom setting. Ultimately, this suggested that some parents saw advantages within mediated learning environments.

An interesting and often neglected consideration associated with a parental lack of media literacy puts household privacy at risk. Many parents are not taking privacy issues into consideration when dealing with online education. Several respondents noted they "Never thought about it" when asked whether they feel their privacy is infringed upon with virtual learning. This indicator of a lack of sophistication or lack of media literacy, can put a whole family's privacy at risk. The newfound area of self-disclosing in a mediated fashion increases privacy concerns which parents are unaware of. Privacy concerns include that of location, "zoombombing" (where uninvited attendees hop on a call), insecure messaging, encryption flaws, and more. These parents should become more self-aware and should be educated by the schools to prevent privacy infringement issues. According to the *Center for Media Literacy (CML),* "Media literacy is a 21st century approach to education. It provides a framework to access, analyze, evaluate, create and participate with messages in a variety of forms - from print to video to the internet." *(Center For Media Literacy*, n.d.*)*. The parent's inability to access, analyze, evaluate, create and participate in a mediated form can further hurt the privacy of their home and

their children.

Ultimately, parents were deeply affected by the transition to full-time digital learning. Many parents considered themselves to be more stressed, and felt as though their normal sleeping, eating, and interpersonal habits have all changed as a result of online learning. Most parents were finding it hard to help their children with assignments due to technological issues, heavier workloads being assigned, and felt as if they do not have enough time due to their own work schedules. They also reported feeling blindsided by the unknown, including a variety of privacy issues. An overwhelming majority of parents noticed changes in their childrens' behaviors, whether it be positive or negative. The ways in which digital learning has impacted children with special needs is also a significant revelation. Overall, it is highly plausible that parents prefer their children to learn in a face-to-face classroom environment.

School Personnel Survey

Seventy-one school personnel were surveyed. Of those respondents, 81% were female. The respondents were predominantly teachers, with other respondents holding administrative positions (e.g. assistant, principal secretary, student teacher, main office receptionist, special education aide, sub TA, social workers, etc.). Seventy percent of school personnel have completed a Master's Degree.

Q5 - What age groups do you work with? Select all that apply.
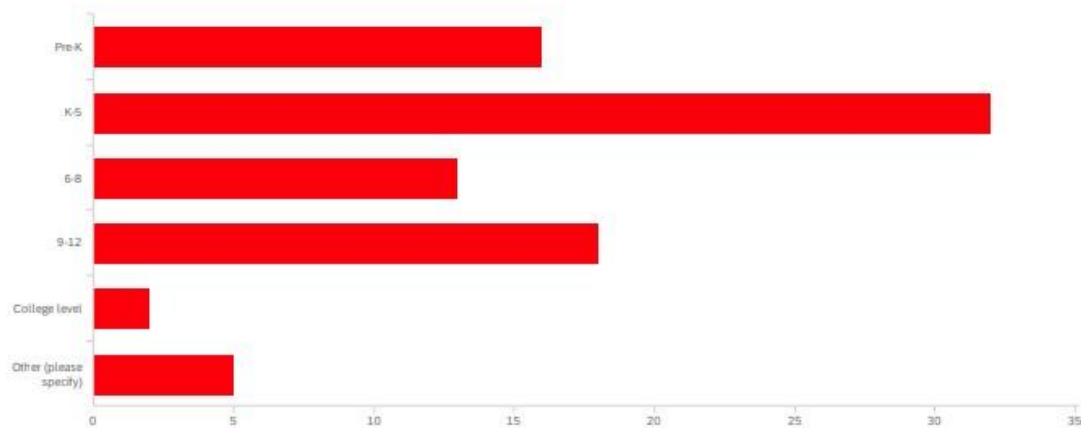

Figure 3

The school personnel who participated in the survey work with a wide range of age groups, from Pre-K to college level students. A majority of the personnel work with kindergarten-fifth grade students (Figure 3). When asked about the level of familiarity with technology that each staff member had, 22% stated that they do not believe they were technologically savvy. This statistic is telling because it asserts the view that educators were forced to virtualize quickly during the early days of the pandemic. Lockdowns may not have the capabilities necessary to support their students. The implications of this are great in terms of understanding the lack of preparation, the stress, and deficiencies in education which resulted for many students. This lack of technological preparedness also suggests the need for future training and preparedness.

There were many significant findings in examining the responses of school professionals. Many noted the effect on their students' behavior. One teacher stated, "A few students with social anxiety disorders etc. are doing better, but the majority of students are less motivated which I think is a result of being overwhelmed and not having the same structure, routine, and support." This correlates and reinforces the aforementioned data about the ability of students with special educational needs in regard to the mediated environment. A school administrator discussed a vital implication of online learning, regarding interpersonal communication. She underscored, "There's a human connection element that I think is required for true effectiveness. As an administrator there are aspects of the job that can be done remotely but it's unrealistic to work full time, assist my own kids with their schooling, and provide the love, attention, and supervision my young children require, which greatly increases stress and effectiveness." This illustrates how it is hard for school personnel to feel as though they are performing their job to the best of their ability in these circumstances. Additionally, it exposes the true essence of learning in a classroom from a school administrative perspective.

More than half (53.7%) of school personnel believed their students were less motivated in this new environment. Many respondents (31.2%) also said that motivation varied. Those who responded noted variation in motivation and offered different factors and reasons to consider. Many said the variation could be found in individual students and some students who were less motivated and less participatory in class were actually now more involved during class discussions, and vice versa. The impact of household distractions were also recognized by the school professionals. A considerable percentage of the school personnel responding, 60%, stated that they were more stressed due to this new learning method. Interestingly, a staggering 88% of school professionals reported that they would much rather do their job in-person and not in a mediated only fashion. A Long Island teacher (kindergarten-eighth grade) who considered herself technologically savvy, was still having multiple issues. She mentioned, "Being a teacher is hard over media." She pointed out that she could not be tactile like she needed to be. She continued to say, "You can't catch mistakes as they happen even

answering their questions is hard because they are all talking over each other even when they are muted they just unmute. It's frustrating. But we make it work." Underlying concerns of comments reflected awareness of the impact on interpersonal relationships with students and those repercussions.

School personnel concluded that they believe students learn better in face-to-face environments. Teachers and people in other administrative positions felt more stressed themselves while trying to navigate and connect with students. The view expressed by one teacher captured this when she said, "The heart of teaching is the relationships built with students in the classroom. Human connection boosts engagement through discussion, trust, and motivation." This statement is depictive of how the negative effects on education and interpersonal relationships was felt when schools went virtual abruptly.

Collaboration, connection, and achievement are three of many components that the virtualization of the classroom challenged. Even so, some respondents preferred to do their job at home. Some responses included, "I can work at times that are convenient for me, not just 7 to 3!", and, "While I miss the interactions that happen when we are in person, I feel I can manage my own internal stress without pressure that I have to keep in mind I'm in a professional setting. Virtually I can lose control but then when it's time for a Zoom team meeting be back to work professionally." This point addresses the attributes that exist for school personnel when working from home. They have the ability to feel more comfortable in a setting in which they can let loose in and are therefore less stressed. One person stated, "Although I have managed to create a virtual classroom for the students, not being able to play with them or hug them makes the work seem like work: Distant and disconnected. I do not feel fulfilled with this type of teaching and I sense that they need more than what I am giving right now." This is just one response that addresses the interpersonal factor that the previous respondent did address. Overall, there were fewer advantages than disadvantages reported existing within this online learning environment for school professionals.

Conclusion

Overwhelming results from each of the three surveys provide a substantial amount of information about how students, parents, and school professionals perceived the effect of the emergency shift to digital learning in the early days of the pandemic during the Spring of 2020. Some findings overlapped between the surveys which created trends worth investigating. In sum, the population involved in this transitional schooling process clearly reported having a difficult time adjusting. Most participants across each survey reported difficulties with focusing or concentrating. They consistently reported increased levels of stress. Parents, children, and school professionals became well aware of the obstacles they needed to overcome within this new learning

environment. Students' learning behaviors and overall stress levels changed, and the adults have noticed this shift first-hand too. Unsurprisingly, parents and school staff members were also generally more stressed due to their altered daily routines. Most respondents reported that they were able to stay in touch with friends and each other through digital media platforms. However, the lack of face-to-face interaction was seen as challenging for a majority of the respondents in all survey groups. All three sectors of respondents reported missing seeing people face-to-face, emphasizing that human interaction is significant for people of all ages.

Remarkably, some respondents from each sector enjoyed some of the attributes that come from schooling at home. Some embraced the freedom to work at their own pace, the ability to manage, and more family time. Although difficult to gauge now, in the future researchers and media studies scholars could evaluate how the virtualization of school increased the already large United States educational gap. The value of group cohesion was neglected in a mandatory virtualized environment.

In *The End of Education: Redefining the Value of School* (1996), Neil Postman said, "You cannot have a democratic—indeed, civilized—community life unless people have learned how to participate in a disciplined way as part of a group. One might even say that schools have never been essentially about individualized learning" (Postman, p. 40). Our results have not only reinforced that school has never just been solely about learning, but also about how to be a socialized human being amongst others. The sense of community and group cohesion issues should also be examined as we have seen the disparate impact of online learning on different types of students. Ultimately, despite the support and access to supplies provided by school districts and a multitude of other variables, this study reveals parents, students, and school professionals struggled in the unprecedented and under-planned shift to virtual learning necessitated by the onset of a pandemic. Across The United States and across the world, people are suffering from intellectual and interpersonal hardships from forced virtualization due to COVID-19. This study offers a basis for future research leading to better planning and preparedness. Additionally, this research provides a glimpse into a unique period, a time of unplanned transition. Future research is certainly needed into the interpersonal relationship issues associated with the adaptations students, parents, and educators made overtime to the virtualization of the classroom.

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