

**Evaluating the Stress Levels of Kindergarten-aged Children, Parents, and Teachers
Concerning Schooling during the COVID-19 Pandemic in the Fall of 2020**

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Abstract

The purpose of this study is to better understand the stress caused by COVID-19 for kindergarten children. Prolonged stress for children can negatively impact their development. This study will look at six different kindergarten classroom teachers and parents to determine their individual stress levels and their perceptions of student stress. Surveys will assist in determining overall stress levels, how the stress levels differ, how stress levels correlate between parent and child, and the difference between virtual and in-person classrooms. Findings showed that there is evidence of stress caused by in-person learning, but it is not significant. Virtual-related stress for parents, teachers and children is high. There is a significant correlation between parent and child stress. There is a significant difference between virtual and in-person stress.

Evaluating the Stress Levels of Kindergarten-aged Children, Parents, and Teachers Concerning Schooling during the COVID-19 Pandemic in the Fall of 2020

When COVID-19 quickly spread across the United States it shook the country and forced all aspects of our lives to halt. Communities, jobs, and schools had to make quick decisions and changes to adjust for a world-wide pandemic. Compared to the rest of the community, schools had unique challenges. With modern-day technology, it was relatively easy for most businesses and companies to switch to working remotely with some exceptions, of course. Communities quickly added mask mandates, social distancing procedures, and limited social gatherings and individuals allowed in a building or room per CDC guidelines (Businesses and Workplaces, 2020). Schools, on the other hand, had it much harder. While modern-day technology has proven to be an amazing asset during this time, there has been a large concern for the quality of education students are getting, particularly in the elementary years both with regards to in-person and distance learning. Both came with numerous unprecedented challenges (Shakya et al., 2020). With regards to this study, children learn best in a safe, comfortable, and supportive environment (Coppie & Bredekamp, 2009). COVID-19 has impacted the classroom in a way that could potentially prevent the optimal environment, resulting in a stressful situation for children, parents, and teachers.

COVID-19

In 2019, China experienced an outbreak of a new strand of coronavirus diseases later named COVID-19. Over the course of a few months, the virus spread globally. Individuals with the virus often exhibited flu-like symptoms (*About COVID-19*, 2020). Those older than 65 years or those with existing medical conditions were more likely to have severe symptoms or result in death (*Do I need to Take Extra Precautions Against COVID-19* 2020). On the other hand, fewer

children have contracted COVID-19 compared to adults, and of those children, most have mild or no symptoms (*COVID-19 in Children and Teens*, 2020). Even though children weren't as affected as adults, there was still a lot not known about the disease. One thing for sure was that it was highly contagious and this forced cities to shut down quickly. In March of 2020, most schools closed or went online for the rest of the school year. This was the first time that schools had to implement long-term distance learning.

In August of 2020, schools across the country had to decide between in-person learning, distance learning, or a mix of the two. First, schools had to decide whether it was safe enough to open school. Generally, this was done based on the case numbers in their given county. They also had to weigh the practicality of distance versus in-person learning, the risks of in-person, and the capability of going fully virtual. If it was safe enough to open school again, the school then had to decide what safety policies and protocols to put in place (Dibner et al., 2020).

Distance Learning

Distance learning consisted of no in-person class. Class materials and lesson plans are sent home with families or sent through the internet. Some schools sent physical packets and lesson plans for students and parents, while others used the internet to either email the material or post it to an online resource. Some resources commonly used were Seesaw and Google Classroom to post material. Distance learning often also included virtual meetings between teachers and students. This looked different for each school and each classroom. It could include full class meetings, small group meetings, or one-on-one meetings. Some resources commonly used for virtual meetings were Zoom and Google Meet. Distance and virtual learning looked and ran differently in every school and every classroom. Distance learning is particularly hard on families especially if they have young children because children have more needs and need more

attention and monitoring with regards to their education (Dibner et al., 2020). Parents now have to help their young children manage technology and daily school work. Parents who work now have to find alternate daily care for their children. Because of this, some children may not have their parents helping them with their school work.

In-Person Learning

Some schools decided to return to in-person classes for the fall semester of 2020. Many schools altered policies and procedures to help prevent the spread of the virus while allowing students and teachers to come to school. Many schools experimented with block scheduling, scattered start times, revised classroom schedules, increased cleaning and sanitizing procedures, mask requirements, modified classroom layout, symptom screening, and many other policies and procedures to minimize the risk of exposure and spread of the virus (*Strategies for Protecting K-12 School Staff from COVID-19* 2020).

Causes of Parent, Child, and Teacher Stress

This drastic change to learning, whether in-person or distance, could potentially cause added stress to parents, children, and teachers. Most notably, none of these individuals have experienced this situation before. Regardless of what the situation is, change is often difficult.

With regards to parents and distance learning, parents have added responsibilities they have most likely never experienced. Parents with children participating in distance learning are now responsible for facilitating their child's education through lesson plans, virtual meetings, and online school work. If parents work, they then have to find someone who can help their child with virtual school during the day or simply find other sources of childcare. This responsibility could often fall on grandparents or siblings. Parents may also feel stressed if technology devices or quality Wi-Fi are difficult to access. In November 2020, almost a year into the pandemic,

across the United States 3.6 million parents reported sometimes, rarely, or never having access to a device for educational purposes. This same study also showed that 3.9 million parents reported sometimes, rarely, or never having internet available for educational purposes (US Census Bureau, 2020). Parents may also be concerned about their child's well-being. The lack of structure, social interaction, and peer and teacher relationships could negatively affect a child's well-being. Children could also struggle with virtual school because of distractions at home, struggling to engage without a teacher and peers, struggling to engage with a screen, not wanting to listen to parents, or if their well-being has been compromised. Parents may also be concerned that their child's education is being compromised. Lastly, parents may be concerned that their personal stress will affect their ability to help their child with distance learning or directly cause their child stress as well.

Children who are participating in distance learning could experience stress due to a lack of social interaction, human contact, routine, and peer and teacher relationships. Forming relationships with adults and peers is essential for social development as well as overall happiness (Copple & Bredekamp, 2009). According to Copple and Bredekamp, teacher-child relationships are so influential that it can even act as a buffer for children when they are experiencing stress. With COVID-19 and other possible stressors in children's lives, those participating in virtual schooling will not have as good of an opportunity to create teacher-child relationships to mitigate some of the stress caused by COVID-19. It may also be more difficult for children to be mainly taught by their parent than your teacher. Technology can be difficult to engage with. Children may struggle to pay attention to their virtual class meetings and struggle to have a desire to do their online classwork. Now, the home is school, which might be confusing since the home has never been school. They may also be distracted by other things or individuals

at home. Having to sit still and stare at a screen is a lot to ask of a young child especially when they aren't getting the chance to have any hands-on learning. Stress may come when parents are attempting to have their child participate and the child resists because they simply do not want to participate because of these difficulties.

Teachers who are participating in distance learning may experience stress from the difficulties of having to rethink curriculum, engaging students, differentiation, communicating with families, and student/parent participation. They may fear that their students' education is being compromised. Stressors may also include a lack of relationship building with students and families. Meaningful parent-teacher-child relationships are key for a quality education (Raikes et al., 2009). Teachers may feel like they don't know their students as well as if they could see them every day in class. Teachers also might be feeling a lack of control over their classroom, curriculum, and students.

Parents with children who are participating in-person may experience stress from new school policies such as masks, restricted schedules, modified classrooms, restricted social interaction, and no parents inside the building and how that will affect their child. They may also be concerned about their child getting COVID-19 from school. Parents have no control over and no idea what other families do outside of school. Parents may fear the unknown of if/when school will be in person, if schools and teachers are following proper cleaning protocols, and if schools and teachers are enforcing new COVID-19 policies. Concerns could also include parent-teacher-child relationships being negatively affected and communication being compromised. There might be a fear that schools don't care about parent concerns. In general, parents also might feel like their child's education is being compromised.

Children participating in in-person classroom may experience stress due to new COVID-19 policies. This can include masks, modified schedules and classroom layouts, restricted social interactions, and restriction of materials. Children may also feel the stress from their parents and teacher. They may also have stress because of parent and teacher actions that happened because of their own personal stress.

Teachers participating in-person may also experience stress due to new COVID-19 policies. It may be difficult to help kids understand and follow the new policies. They may also feel stress from a lack of control over the classroom and school in general as well as family's actions outside of school. Teachers may fear the unknown of if/when school will be in person or not. They may also fear getting COVID-19. Parent-teacher-child relationships may also be negatively affected, which can affect the well-being of teachers and children as well as the quality of education. Teachers may also be concerned that their personal stress is affecting their children or their work.

The Current Study

COVID-19 has drastically affected the classroom and in several different ways. This study looks at the impact of these drastic changes within the classroom and how it has affected the well-being, specifically stress levels, of children, teachers, and parents. It also examines the correlation between parent and child stress, as well as the difference between distance and in-person learning. I expect that current stress levels will generally be high for all individuals. Specifically, I hypothesize that teachers and parents will report high-stress levels for themselves and their students. My second hypothesis is that there will be a positive correlation between parent and child stress. My third hypothesis is that overall stress levels will be higher for the individuals who are participating in distance learning as opposed to in-person learning.

Methods

Data/Participants

Data was acquired through an online survey using Qualtrics. This study was submitted to and approved by the Oklahoma State University Institutional Review Board. Six female kindergarten teachers participated from different public-school districts in Oklahoma. Three of the districts participated in in-person learning, and the remaining three participated in distance learning. The teachers' years of experience in the classroom ranged from three to nine years. The average years of experience was 5.17 years. There was a total of 25 participants who took the parent survey. Of those 25 surveys, five were incomplete and 20 were fully completed. The majority of the participants were the child's mother. All children were either five or six years old. The average age of children was 5.4 years old. The majority of children had educational experience prior to this year. Most parents reported additional children in the household. The mean was 2.57 additional children. See Table 1 for a summary of participant demographics.

Variables/Procedures

There were two different surveys: one for teachers and one for parents. Teachers were emailed the link to their survey as well as the parent survey to email to their classroom parents. Parents then chose whether or not they wanted to participate. The parent survey prompted parents to choose which school their child attends. This kept parent surveys anonymous but allowed me to group parent responses with the correct teacher. The surveys included rating scales about personal feelings and stress levels regarding schooling during the Fall of 2020. Teachers rated 12 statements from 1 (disagree) to 5 (agree). Teachers also rated three stress questions from 1 (very little) to 5 (very much). Parents rated eight statements from 1 disagree to 5 agree. Parents also rated three stress questions from 1 (very little) to 5 (very much). Parents

and teachers were asked about the children's feelings and stress levels as well. Teachers rated nine statements from 1 (disagree) to 5 (agree). Parents rated eight statements from 1 (disagree) to 5 (agree).

Analysis

I expect that teachers and parents will report high stress levels for themselves and their students. Several survey questions regarding stress levels will indicate how high stress levels of parents, teachers, and children are. The correlation will be determined by examining responses to questions asking about individual parent stress and relating them to questions asking parents about their child. This will be determined through a Spearman Correlation test. Child happiness was computed by calculating the average of parent ratings on three items: My child is currently happy regarding school; My child is excited to start school each day; My child is adjusting well to school COVID-19 policies and procedures. Child stress was computed by calculating the average of parent ratings on three items: My child is currently stressed regarding school; My child is eager to be done with school each day; My child has expressed to me that they are unhappy regarding school. The difference between child stress caused by distance learning and in-person learning was determined through an independent samples *t*-test.

Results

School COVID-19 Precautions and Procedures

Teachers reported several new procedures implemented at their schools in response to COVID-19. All in-person teachers reported teacher and staff mask requirements, no families allowed inside the building, increased cleaning responsibilities, restricted sharing of materials, and closed water fountains. Two teachers additionally reported student mask requirements, students placed in groups to limit exposure, and modified schedules. One teacher additionally

reported modified classroom layout, students having to eat lunch in the classroom, and bathroom schedules. All in-person schools also had policies set in place to switch to virtual learning if there was exposure in a classroom, a certain percentage of the school was in quarantine, or if the county had high case numbers. Of the 13 policies given as options, school A reported seven, school B reported nine, and school C reported ten new policies and procedures implemented this year as a response to COVID-19.

Overall Stress Levels

Both teachers and parents reported low stress levels for students. See Table 2 for teacher ratings of child stress and Table 3 for parent ratings of child stress. Scores higher than three represent high levels and scores less than three represent low levels. This was interpreted in this way because a score of three was neutral, while four was somewhat agree, and five was agree. Thus, a mean higher than three, means the average person agreed with the statement. A score of 1 was disagree and a score of 2 was somewhat disagree. Thus, a mean lower than three means the average individual disagreed with the statement. Both groups also reported high levels of happiness and excitement to start school each day. Children adjusting to new policies and procedures also ranked very high. However, teachers and parents generally reported higher stress levels for themselves. There is evidence of stress in both virtual and in-person teachers, parents, and children. Individuals experiencing virtual learning reported higher ratings of stress in most categories. Even though virtual stress was high, in-person stress remained relatively low. Thus, the hypothesis that overall stress would be high was not supported in the data.

Teacher Stress Levels

Overall, teachers rated high happiness and stress for themselves. All teachers either agreed or somewhat agreed that school was more difficult this year. Teachers feel there are major

stressors in their students' lives that they can't do anything about and feel like parent stress transfers to the students. See Table 4 for means of Teacher Stress. There was a large difference between in-person teachers and virtual teachers with regards to how much stress is caused by the unknown of when school is going to be in-person or virtual, the possibility of contracting COVID-19, and the possibility of children contracting COVID-19. Virtual teachers were considerably more stressed than in-person teachers. See Table 5 for means of Teacher Stress.

Parent Stress Levels

Overall, parents felt like their child's education was being compromised. They felt like their stress transfers to their child. Parents also reported that school is more difficult this year. See Table 6 for means of Parent Stress. Generally, parents were stressed about the unknown of when school is going to be virtual or in-person. They reported lower stress levels for concern regarding the possibility of them or their children contracting COVID-19. See Table 7 Means and Percentages for Ratings of Parent Stress.

Correlation Between Parent and Child Stress

The hypothesis that parent stress would correlate with child stress was supported in the results of running a Spearman Correlation test. Parent ratings of a compromised education are significantly and negatively related to parent ratings of child happiness ($\rho = -.52, p = .02$). Parent ratings of a compromised education are significantly and positively related to parent ratings of child stress ($\rho = .48, p = .04$). Parent ratings of a compromised education are significantly and negatively related to parent ratings of child adjustment to school COVID-19 policies and procedures ($\rho = -.58, p = .01$). Parent ratings of a compromised education are significantly and positively related to parent ratings of feeling that the effects of COVID-19 on schooling has negatively impacted their child ($\rho = .69, p < .01$). Parent ratings of a compromised education are

significantly and positively related to parent ratings of feeling that the effects of COVID-19 on schooling will negatively impact their child long-term ($\rho = .47, p = .05$).

Parent ratings of feeling like there are major sources of stress in a child's life that nothing can be done about are significantly and negatively related parent ratings of child adjustment to school COVID-19 policies and procedures ($\rho = -.62, p < .01$). Parent ratings of feeling like there are major sources of stress in child's life that nothing can be done about are significantly and positively related to parent ratings of feeling that the effects of COVID-19 on schooling has negatively impacted their child ($\rho = .58, p < .01$).

Parent ratings of feeling like parent stress transfers to the child are significantly and positively related to parent ratings of feeling that the effects of COVID-19 on schooling will negatively impact their child long-term ($\rho = .54, p = .02$).

Parent ratings of school being more difficult this year are significantly and negatively related to parent ratings of child happiness ($\rho = -.65, p < .01$). Parent ratings of school being more difficult this year are significantly and positively related to parent ratings of child stress ($\rho = .61, p < .01$). Parent ratings of school being more difficult this year are significantly and negatively related to parent ratings of child adjustment to school COVID-19 policies and procedures ($\rho = -.74, p < .01$). Parent ratings of school being more difficult this year are significantly and positively related to parent ratings of feeling that the effects of COVID-19 on schooling has negatively impacted their child ($\rho = .67, p < .01$). Parent ratings of school being more difficult this year are significantly and positively related to parent ratings of feeling that the effects of COVID-19 on schooling will negatively impact their child long-term ($\rho = .51, p = .02$).

Parent ratings of how much stress the unknown of when school is going to be virtual or in-person causes are significantly and negatively related to child happiness ($\rho = -.51, p = .03$).

Parent ratings of how much stress the unknown of when school is going to be virtual or in-person are significantly and positively related to child stress ($\rho = .52, p = .02$). Parent ratings of how much stress the unknown of when school is going to be virtual or in-person causes are significantly and negatively related to parent ratings of child adjustment to school COVID-19 policies and procedures ($\rho = -.58, p < .01$). Parent ratings of how much stress the unknown of when school is going to be virtual or in-person causes are significantly and positively related to parent ratings of feeling that the effects of COVID-19 on schooling has negatively impacted their child ($\rho = .57, p = .01$).

Difference Between Distance and In-Person Stress

Of the five variables ran through a t-test for Equality of Means, three showed statistically significant differences. Parents of children participating in in-person school rated their children as significantly happier ($M = 4.22, SD = 1.13$) than parents of children participating virtually ($M = 2.27, SD = 1.01$), $t(18) = 3.42, p = .003$). Parents of children participating in virtual school rated their children as significantly more stressed ($M = 3.67, SD = .98$) than parents of children participating in-person ($M = 2.16, SD = .98$), $t(18) = 3.11, p = .006$). Parents of children participating in virtual school reported higher rates of feeling that the effects of COVID-19 on schooling will negatively impact their children long-term ($M = 4.40, SD = 1.34$) than parents of children participating in-person ($M = 2.87, SD = 1.30$), $t(18) = 2.27, p = .04$). The remaining two variables appeared to be different, but were not statistically significant. Parents of children participating in virtual school reported higher rates of feeling that the effects of COVID-19 on schooling has negatively impacted their children ($M = 4.20, SD = 1.30$) than parents of children participating in-person ($M = 3.13, SD = 1.55$), $t(18) = 1.38, p = .186$). Parents of children participating in virtual schooling reported higher rates of feeling like their child's education is

being compromised ($M = 4.25$, $SD = .96$) than parents of children participating in-person ($M = 3.20$, $SD = 1.47$), $t(17) = 1.34$, $p = .199$).

In-person teachers did not think the effects of COVID-19 will negatively impact their students long-term, where virtual teachers did. In-person teachers are more stressed than virtual teachers, however, virtual teachers reported higher on feeling like there are major sources of stress in their students' lives that they can't do anything about, feeling powerless regarding school this year, feeling like their students' education is being compromised, and feeling like COVID-19 has affected relationship building with their students. All teachers either agreed or somewhat agreed with the statement that overall, school is more difficult this year. Virtual teachers also reported higher stress levels compared to in-person teachers regarding the unknown of when school is going to be virtual or in-person and the possibility of themselves or their students contracting COVID-19.

Parents of children participating in in-person class reported that their child was generally happy, not stressed, excited to start school each day, and has adjusted well to COVID-19 policies and procedures. The different between parent responses on these variables were significantly different. Parents of child participating in virtual class reported that their child is generally not happy, is stressed, is not excited to start school each day, is eager to be done with school, and is not adjusting well to COVID-19 procedures. Parents of virtual classrooms also reported higher means compared to in-person parents that school is more difficult this year. Both in-person and virtual parents reported high stress regarding the unknown of when school is going to be virtual or in-person. Virtual parents were less stressed regarding the possibility of themselves or their children contracting COVID-19 compared to in-person parents. The hypothesis that individuals

participating in virtual schooling would report higher stress levels than in-person was supported in the data.

Discussion

School COVID-19 Precautions and Procedures

Teachers reported having to make several changes in their classrooms. Change can be stressful, especially during this unprecedented time where we are already having to go through so much change. Teachers reported that school is more difficult this year and they are experiencing stress. Additional required changes at schools and in the classroom could be contributing to this stress. In-person teachers and parents acknowledged that children are generally adjusting well to new policies and procedures and are still enjoying school. I believe children are more resilient than adults, and as long as they still have the opportunity to go to school and interact with peers, minor adjustments will not drastically affect them.

Overall Stress Levels

Overall stress levels were fairly neutral for in-person parents and children, whereas virtual parents and children experienced higher stress. The hypothesis that all parents, teachers, and children of both in-person and virtual classrooms would report high stress was not supported. A larger sample size would give a better indication of these stress levels. These particular schools who are in-person may be handling the situation better than others. It is also possible that the parents who are the most stressed in each classroom may not have taken the survey because of their high stress levels, and the parents who were less stressed were more likely to take the survey because they felt like they would be able to at the time.

Correlation Between Parent and Child Stress

There were several significant correlations between parent and child stress. Not all aspects of parent stress correlated with child stress, however, several data points supported the hypothesis that there was some kind of correlation between parent and child stress. There are several possibilities for why this might be the case. Actions from parents due to their own stress may cause stressful situations for their children. Stress may cause parents to forget important things that impact their child. Stress may also cause parents to make changes to daily schedules, which could cause stress for children. Children may sense the stress their parents are in and feel the same. Parents may sense the stress in their children, which may cause them stress as well. The correlations between parent and child stress may also simply be because they are experiencing similar things, particularly with regards to COVID-19, where both parent and child are experiencing changes in schooling and daily schedule together.

Difference Between Distance and In-Person Stress

Parents, teachers, and children participating in virtual classrooms generally reported higher stress levels. Virtual parents also reported that their child was not adjusting well to virtual schooling and felt the changes had negatively impacted their child. Virtual parents also felt like their child's education was being compromised and felt powerless regarding their child's education. These individuals may be experiencing more stress because they experienced more drastic changes compared to those experiencing school in-person. Distance learning often included a lack of socialization, having to be cooped up in your house, and having to make several adjustments. These adjustments include a different daily schedule, receiving education through a screen, and often having a caregiver take on more of a teacher role. The more drastic adjustments and lack of social opportunities may be the cause of additional stress in these children's lives. Overall, both in-person and virtual parents reported that school was generally

more difficult this year. This could be because of the many adjustments both in-person and virtual had to make that were caused by COVID-19.

Conclusion

The study sample for this study was small with only six teachers and 25 parents participating, which is a major limitation of the study. However, since COVID-19 is a new virus, there is very little research on anything COVID-19 related. Because of the small sample size, this study was conducted quickly and can be used as a basis for future research relating to this subject. For future research, I recommend collecting more data to further findings on this specific study. Questions would be altered or added to the surveys to get a better understanding of parent, teacher, and student stress levels. For example, in the parent survey, I would add a question asking parents to rate their current stress level. I would also take away some questions to make the survey shorter in hopes of obtaining more parent participation. I would also recommend future research to focus on the effects that virtual or distance learning has on parents, teachers, and children.

Recommendations for practice include emotionally supporting parents, teachers, and children and not overwhelming them with an abundance of rigorous schoolwork, especially those participating in virtual. Emotional support resources should be readily available and accessible to all parents, teachers, and children. Parents' and teachers' concerns should be validated and considered in schools. Schools should make every effort if possible to make in-person a reality for families who want their children to participate in-person. Cohorts, distancing, masks, and other policies should remain a priority if schools are in-person. In some cases, this may mean breaking up students into groups to come to school on different days to limit exposure. Schools and teachers should also consider home-visits to maintain parent-teacher-child relationships, but

only if gatherings can happen outside and while remaining socially distant. Schools and teachers participating in virtual school should consider providing educational, but fun and motivating activities for students such as a scavenger hunt outside, baking, family games, a search for bugs, creating a habitat for the bugs they find, and so on. There are endless possibilities to offer children to give them a break from staring at a screen or working in a workbook. During virtual classroom meetings, teachers should also provide purposeful opportunities for children to interact with each other instead of just with the teacher. Ultimately, parents and teachers should be doing everything they can to ensure that children feel safe and loved during this unprecedented time.

References

- About COVID-19. (2020, September 17). Retrieved October 07, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/cdcresponse/about-COVID-19.html>
- Businesses and workplaces. (2020, May 6). Retrieved October 06, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/businesses-employers.html>
- Copple, C., & Bredekamp, S. (Eds.). (2009). *Developmentally appropriate practice in early childhood programs*. Washington, D.C.: National Association for the Education of Young Children.
- Dibner, K. A., Schweingruber, H. A., & Christakis, D. A. (2020). Reopening K-12 schools during the COVID-19 pandemic. *JAMA*, 324(9), 833. doi:10.1001/jama.2020.14745
- Do I need to take extra precautions against COVID-19. (2020, September 11). Retrieved October 06, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/index.html>
- Raikes, H. H., Edwards, C. P., & Gandini, L. (2009). *Extending the dance in infant and toddler caregiving: enhancing attachment and relationships*. Baltimore, MD: Paul H. Brookes Publishing.
- Shakya, T., Fasano, S., Marsh, M., & Rivas, A. (2020, May 20). For teachers and students, remote learning during COVID-19 poses challenges, stokes creativity. Retrieved October 13, 2020, from <https://abcnews.go.com/US/teachers-students-remote-learning-covid-19-poses-challenges/story?id=70770744>

Strategies for protecting K-12 school staff from COVID-19. (2020, August 20). Retrieved October 07, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-staff.html>

U.S. Census Bureau (2020, November 18). Week 18 household pulse survey: October 28 – November 9. Retrieved December 12, 2020, from <https://www.census.gov/data/tables/2020/demo/hhp/hhp18.html>

Appendix

TABLE 1. Percentages of Demographics

Variable	Percent	<i>n</i>
Participants per school		23
School A (In-Person)	34.78%	8
School B (In-Person)	13.04%	3
School C (In-Person)	30.43%	7
School D (Virtual)	4.35%	1
School E (Virtual)	8.70%	2
School F (Virtual)	8.70%	2
Relationship to child		23
Mother	69.57%	16
Father	17.39%	4
Other	13.04%	3
Child's gender		22
Male	50.00%	11
Female	50.00%	11
Child's race		25
American Indian or Alaska Native	8.00%	2
Asian	8.00%	2
Black or African American	8.00%	2
Native Hawaiian or Other Pacific Islander	4.00%	1
White	72.00%	18
Other	0.00%	0
Child's ethnicity		21
Hispanic or Latino	19.05%	4
Not Hispanic or Latino	80.95%	17

TABLE 2. Means for Teacher Ratings of Students Stress

Variable	Overall Mean (SD)	In-Person Mean (n = 3)	Virtual Mean (n = 3)
Students are happy regarding school	4.67 (0.47)	5.00	4.33
Students are stressed regarding school	2.00 (0.58)	2.00	2.00
Students are excited to start school each day	4.50 (0.50)	5.00	4.00
Students are eager to be done with school each day	3.00 (1.15)	3.00	3.00
Students are adjusting well to school COVID-19 policies and procedures	4.17 (0.69)	4.00	4.33
Students easily follow new COVID-19 policies and procedures	4.00 (1.00)	3.67	4.33
The effects of COVID-19 on schooling has negatively impacted my students	4.17 (0.69)	3.67	4.67
The effects of COVID-19 on schooling will negatively impact my students long-term	3.50 (1.12)	2.67	4.33
Students have expressed to me their unhappiness with new COVID-19 procedures	2.17 (1.07)	2.33	2.00

TABLE 3. Means for Parent Ratings of Student Stress

Variable	Overall Mean (SD)	In-Person Mean (n = 15)	Virtual Mean (n = 5)
My child is happy regarding school	3.90 (1.37)	4.40	2.40
My child is currently stressed regarding school	2.25 (1.26)	1.80	3.60
My child is excited to start school each day	3.95 (1.47)	4.47	2.40
My child is eager to be done with school each day	3.00 (1.45)	2.67	4.00
My child is adjusting well to school COVID-19 policies and procedures	3.35 (1.59)	3.80	2.00
My child has expressed to me that they are unhappy regarding school	2.35 (1.31)	2.00	3.40
I feel that the effects of COVID-19 on schooling has negatively impacted my child	3.40 (1.50)	3.13	4.20
I feel that the effects of COVID-19 on schooling will negatively impact my child long-term	3.25 (1.41)	2.87	4.40

TABLE 4. Means for Ratings of Teacher Stress

Variable	Overall Mean (SD)	In-Person Mean (n = 3)	Virtual Mean (n = 3)
I am happy at work	4.00 (1.00)	4.67	3.33
I am stressed at work	4.00 (1.00)	4.33	3.67
I feel there are major sources of stress in my students' lives that I can't do anything about	4.17 (1.07)	3.67	4.67
I currently feel powerless regarding school	3.33 (1.11)	2.67	4.00
Overall, school is more difficult this year	4.67 (0.47)	4.67	4.67
I am happy with the COVID-19 policies put in place by my school	3.00 (0.82)	3.33	2.67
I feel like my concerns are being considered by my school or district	2.83 (0.69)	3.00	2.67
I feel like my students' education is being compromised	3.33 (1.37)	2.33	4.33
I am fearful to go to work each day	1.50 (0.76)	1.33	1.67
I feel like my stress transfers to my students	2.17 (1.07)	2.33	2.00
I feel like my students' parents' stress transfers to their students	4.17 (1.07)	3.67	4.67
COVID-19 has affected my relationship building with my students	2.83 (1.57)	1.33	4.33

TABLE 5. Means for Ratings of Teacher Stress

Variable	Overall Mean (SD)	In-Person Mean (n = 3)	Virtual Mean (n = 3)
How much stress does the unknown of when school is going to be virtual or in-person cause you?	3.17 (1.57)	1.67	4.67
How much stress does the possibility of you contracting COVID-19 cause you?	3.17 (1.57)	2.33	4.00
How much stress does the possibility of your students contracting COVID-19 cause you?	3.83 (1.67)	2.67	5.00

Table 6. Means for Ratings of Parent Stress

Variable	Overall Mean (SD)	In-Person Mean (n = 15)	Virtual Mean (n = 4)
I feel like my concerns are being considered by my school or district	3.94 (1.27)	4.07	3.50
I am happy with the COVID-19 policies put in place by my school district	3.84 (1.23)	3.80	4.00
I feel like my child's education is being compromised	3.42 (1.39)	3.20	4.25
I am fearful to send my child to school each day	2.47 (1.39)	2.40	2.75
I feel there are major sources of stress in my child's life that I can't do anything about	2.79 (1.28)	2.80	2.75
I feel like my stress transfers to my child	3.37 (1.18)	3.33	3.50
I currently feel powerless regarding my child's education	3.53 (1.31)	3.40	4.00
Overall, school is more difficult this year	4.00 (1.17)	3.87	4.50

TABLE 7. Means for Ratings of Parent Stress

Variable	Overall Mean (SD)	In-Person Mean (n = 15)	Virtual Mean (n = 4)
How much stress does the unknown of when school is going to be virtual or in-person cause you?	3.79 (1.44)	3.73	4.00
How much stress does the possibility of you contracting COVID-19 cause you?	3.47 (1.50)	3.67	2.75
How much stress does the possibility of your students contracting COVID-19 cause you?	3.16 (1.46)	3.40	2.25