

Early Childhood Parent-Teacher Relationships During COVID-19 and Parent Ratings on Children's Learning

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Abstract

Considering the program changes that took place during this challenging time in early childhood programs, not much has been researched on how children's development was impacted. The study used a quantitative design and surveyed 83 parents of young children in early childhood programs in the spring of 2021. The study investigated the ratings of parents on their children's social emotional development, reading, math and creativity during the pandemic and correlated them with parent teacher relationships subscales. It examined how the current parent teacher relationship model in early childhood programs fared in supporting children's learning. Over 50% of the parents in the study indicated their children not doing well in all of the four developmental areas. Non-significant correlations were found for math and parent teacher relationships subscales among others. Implications for developing parent teacher relationships geared towards children's learning and development are discussed.

Keywords : *Parent teacher relationships, COVID-19, Social emotional development, Reading, Math, Creativity, Early Childhood*

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Introduction

Although COVID-19 disrupted the daily lives of many children, research is still ongoing to better understand its effects on their development and the areas most impacted for both children and families. The pandemic introduced numerous challenges that have been widely examined in the early childhood education literature (Wei, Wang, Tan, Li, & Zhou, 2021; Hae, Yu, Hyun, Jin, & Jee, 2021). Much of this scholarship highlights its impact on children, parents, teachers, staff, and early childhood programs as a whole. Some studies have found that while teachers maintained optimism about their profession during this period (Wei et al., 2021; Hae et al., 2021), this optimism diminished as financial pressures and income reductions emerged. Hae et al. (2021) further reported that although government policy responses and services for early childhood education and care (ECEC) provided structural support and ensured program safety, they offered limited resources to address the psychological well-being of children and families. One area that remains understudied is the quality of parent–teacher relationships in early childhood programs, particularly how these relationships were sustained during the crisis and how they influenced children’s learning. This paper seeks to address these questions

COVID 19 Pandemic

Some studies have found that during the pandemic, children demonstrated increased prosocial behaviors, experienced greater difficulties in their peer relationships, and developed stronger digital skills (Moriguchi, Sakata, Meng, & Todo, 2020). Research on the impact of COVID-19 on shared book reading—a key support for early language, literacy, and socio-emotional development found a significant increase in the frequency of screen-mediated reading, particularly among families who lost access to outside-the-home childcare (Read, Gaffney, Chen, & Imran, 2021). However, the study also reported a decline in the number of adults who regularly read with their children. While families maintained consistent amounts of shared reading overall, the nature of this practice shifted, with many caregivers adapting to virtual options for story time.

Teachers also faced significant challenges during the pandemic, even as many reported engaging children in art, science, and mathematics activities to sustain learning. Despite families' efforts to create varied practices to support children's learning and well-being, a majority of parents expressed stress over the demands of remote education. Many found it difficult to maintain their children's interest and engagement (Soltero-Gonzalez & Gillanders, 2021). Social distancing measures further disrupted daily routines, largely due to work-related changes and school closures. Teachers and parents frequently observed changes in children's mood and behavior, often attributed to boredom, agitation, and restlessness, which made classroom management particularly challenging during this period (Ares et al., 2021).

Evidence suggests that kindergarten children lost an estimated 67% of their literacy abilities during COVID-19 school closures. However, some scholars argue that this loss could be mitigated through consistent daily reading (Bao, Qu, Zhang, & Hogan, 2020). Broader school readiness losses were also documented in motor and cognitive development, attitudes toward learning, and internalizing behaviors (Gonzalez et al., 2023). Research on the effects of schooling on cognitive development indicates that such losses may be recovered through interventions such as additional schooling, which has been shown to raise test performance (Carlsson, Dahl, Öckert, & Rooth, 2015). These scholars have also suggested that the overall impact of COVID-19 school closures may be comparable to approximately twelve weeks of missed schooling—equivalent to a learning loss of about 6% of a standard deviation. The pandemic, however, was especially difficult for certain groups. For instance, more than half of mothers surveyed reported challenges with supporting their children's education at home (Burns, Jegatheeswaran, & Perlman, 2023). Many struggled to balance the dual responsibilities of acting as teachers while managing their children's remote learning alongside other obligations. Parents frequently reported declines in their children's motivation, socialization, and ability to concentrate. Children who stayed at home also reported greater loneliness compared to those who remained in daycare (Linnavalli & Kalland, 2021). Heightened parental stress during quarantine further exacerbated children's difficulties. Other studies have confirmed that school closures during COVID-19 were problematic, contributing to significant learning losses (Spiteri et al., 2023).

Some studies have found that during the pandemic, children were more prosocial, experienced more problems in their peer relationships, and had better digital skills

(Moriguchi, Sakata, Meng, & Todo, 2020). A study looking at the impact of COVID – 19 on shared book reading (Read, Gaffney, Chen, & Imran, 2021) which is a nurturing support for early language, literacy, and social emotional development in young children’s care found a significant increase in frequency of screen-mediated reading, especially among families who lost outside-the-home childcare. The findings also reported a significant decrease in the number of adults who regularly read with their children. While families were still able to provide consistent amounts of shared reading with their children throughout COVID-19, the nature of that shared reading changed. Most caregivers adapted to virtual options for story time.

During the pandemic, teachers faced numerous challenges despite many reporting doing art, science, and mathematics activities and games to sustain education. Even though most families created a variety of practices to support children’s learning and wellbeing, a vast majority of parents still expressed feeling stressed with the demands of remote education. Especially most parents found it difficult keeping their children interested (Soltero-Gonzalez, & Gillandersi, 2021). The social distancing measures also caused major disruptions in daily habits that were mostly attributed to changes in work-related activities and the closure of educational institutions. Most teachers and parents reported seeing changes in children’s mood and behavior that was majorly attributed to boredom, agitation, and restlessness. This made it difficult for some teachers to cope with children’s behavior during the social distancing period (Ares, Bove, Vidal, Brunet, Fuletti, Arroyo, Blanc, 2021).

It has also been estimated that kindergarten children lost 67% of their literacy abilities during COVID-19 school closures. However, some authors have argued that this loss could be mitigated through reading books to children daily (Bao, Qu, Zhang, & Hogan, 2020). During the pandemic major school readiness losses were noticed in motor and cognitive development, attitudes towards learning, and internalizing behavior (Gonzalez, Loose, Liz, Perez, Rodriguez-Vincon, Tomas-Llerena, Vasquez-Echeverria, 2023). Scholars who have looked at the effects of schooling on cognitive development stipulate that schooling losses can be gained with practices such as extra schooling as this can significantly raise scores on tests (Carlsson, Dahl, Öckert, Rooth, 2015). These scholars have also estimated that the impact of the school closures during COVID-19 on learning were trivial and have equated them to twelve weeks of less schooling which is a loss of 6% of a standard deviation.

However, the pandemic was hard on some groups of people. For example, over half of the mothers who were surveyed reported experiencing challenges related to children's education at home during the pandemic (Burns, Jegatheeswaran, & Perlman, 2023). Many of these parents experienced difficulties in taking the role of a teacher while at the same time balancing their children's remote learning with other responsibilities. Most parents reported their children lacked motivation and socialization and had difficulty focusing at home (Burns, Jegatheeswaran, & Perlman, 2023). The children who stayed at home reported feeling lonelier than those who remained in daycare (Linnavalli, & Kalland, 2021). Also, many parents experienced difficulties in dealing with quarantine and this increased their stress level which in turn increased their children's problems. Other studies have reported that school closure during COVID-19 was problematic and resulted in learning losses (Spiteri, Deguara, Muscat, Bonello, Farrugia, Milton, Said, 2023).

Bronfenbrenner Ecological Theory & COVID - 19

Bronfenbrenner's Ecological Systems Theory posits that a child's development occurs within multiple interrelated environmental layers from the immediate settings of family and school (microsystem), to the interconnections among those settings (mesosystem), to external influences (exosystem), broader cultural and policy contexts (macrosystem), and the temporal dimension of change over time (chronosystem) (Bronfenbrenner, 1979; Bronfenbrenner, 1992). At the microsystem level, the COVID-19 pandemic disrupted daily routines by closing schools and limiting peer interactions, compelling parents and teachers to shift abruptly into new roles (e.g., remote learning, home schooling) which altered the proximal processes fundamental to development. At the mesosystem level, the pandemic weakened home-school collaborations and extracurricular networks as physical separation and social-distancing curtailed the usual inter-setting linkages (e.g., parent-teacher meetings, peer group activities). At the exosystem level, families experienced job losses or shifts to remote work, and child-care and community supports were constrained factors that do not involve the child directly but indirectly influence their environment and well-being. At the macrosystem level, national lockdowns, public-health mandates, cultural norms around risk and safety, and educational policy responses changed the broader societal climate that shapes

family, school, and community environments. Finally, in the chronosystem dimension, the pandemic represents a major historical event and life-course transition, with potential long-term effects on children's social-emotional development, academic trajectories, and family dynamics over time. Together, this ecological framing helps underscore that pandemic-related disruptions did not occur in isolation but reverberated across nested systems, altering the conditions under which children develop and families engage with schools and communities.

Parent teacher relationships are central to early childhood programs, as connections between home and school create vital linkages for children's learning and development. These relationships are defined as collaborative and coordinated efforts between parents and teachers to support children's education (Epstein, 1996, 2011). Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2006), supported by empirical evidence (Barnett et al., 2020; Galindo & Sheldon, 2012), underscores the multiple layers of partnerships that shape child development. At the microsystem level, children engage in direct interactions with people, materials, and activities in settings such as home and school. The mesosystem reflects the interconnections between these microsystems, while the exosystem encompasses settings indirectly influencing children, such as parents' workplaces or local policy decisions. Finally, the macrosystem represents the broader cultural context of values, laws, and traditions. Within this framework, positive parent-teacher relationships have been linked to improved school readiness (Barnett et al., 2020) and enhanced academic performance (Galindo & Sheldon, 2012).

When engagement between parents and schools is positive, mutual, and respectful, children are more motivated to learn and show stronger emotional, social, and behavioral adjustment (Fan & Chen, 2001; Henderson & Mapp, 2002; Marcon, 1999; Reynolds, 1991). Researchers distinguish between parent involvement behaviors (e.g., volunteering, attending school functions, assisting with homework) and parent-teacher relationship behaviors, which are measured by the quality of trust, shared values, and aligned expectations between families and educators (Kohl, Lengua, & McMahon, 2000; Rimm-Kaufman, La Paro, Downer, & Pianta, 2005; Vickers & Minke, 1995). Importantly, the quality of these relationships appears consistent across diverse ethnic and socioeconomic groups (Boethel, 2003). For example, Rimm-Kaufman et al. (2005) found that kindergarten teachers' reports of parents' positive

attitudes toward education predicted higher levels of child participation and engagement, even after controlling for socioeconomic status and maternal sensitivity.

More recent literature conceptualizes parent–teacher relationships as ongoing, collaborative partnerships built on mutual respect, trust, open communication, and shared responsibility for children’s well-being (Epstein, 2011; Kim & Sheridan, 2015). These qualities are now commonly assessed through the Family Provider Teacher Relationship Quality (FPTRQ) measure, which encompasses eight domains: family-specific knowledge, collaboration, communication, responsiveness, understanding contexts, family-focused concerns, and respect. Each domain maps onto ecological layers of Bronfenbrenner’s theory. For instance, family-specific knowledge reflects educators’ understanding of children’s home environments and cultural backgrounds, strengthening mesosystem linkages (Christenson & Sheridan, 2001). Collaboration and communication support consistency and reciprocity across home and school (Minke et al., 2014), while responsiveness and contextual understanding extend into the exosystem and macrosystem by addressing broader socioeconomic and cultural influences (Weiss, Kreider, Lopez, & Chatman, 2005).

Professional standards reinforce these expectations. For example, the National Association for the Education of Young Children (NAEYC, 2025) highlights the need for programs to establish collaborative, culturally sensitive relationships with families, built on trust and respect, to foster optimal child development across settings. Programs are therefore encouraged to measure parent–teacher relationship quality and use data to guide improvements that benefit children and families.

The importance of strong educator family partnerships is heightened during times of crisis. During the COVID-19 pandemic, risk mitigation measures restricted face-to-face interactions, creating significant communication challenges for early childhood education programs. This led to an increased reliance on digital platforms, which in some cases enhanced visibility into educators’ work and children’s learning (Oke et al., 2021). However, online modalities posed clear limitations for very young learners (Hu et al., 2021), while inequities in access highlighted the digital divide, with some families at risk of exclusion (Barnett et al., 2021; Shaik, 2022).

Perceptions of Children's Learning and Contexts

Early childhood professionals are expected to draw on specialized knowledge of social–emotional development to support children's growth. During the COVID-19 pandemic, however, much of this responsibility shifted to parents, as teachers had limited access to children and families compared to regular classroom settings. Despite these challenges, more than 90% of teachers agree that social skills are the most important competencies required for kindergarten entry (Barnett, Paschall, Mastergeorge, Cutshaw, & Warren, 2020). Socially competent children tend to be happier, more successful in their interactions with peers, more popular, and more satisfied with life.

Research consistently demonstrates the strong link between children's social relationships and academic achievement, with positive peer interactions associated with greater success in school (Pellegrini & Glickman, 1990; Berndt & Keefe, 1995). Conversely, a lack of social competence has been associated with peer rejection, low self-esteem, and poor academic performance (Crockenberg, Jackson, & Langrock, 1994). Moreover, children who struggle socially are at increased risk of continuing maladaptive behavior patterns into adolescence and adulthood (Hartup, 1992; Shapiro, 1997).

Early social skills are thus foundational, correlating strongly with later academic outcomes, social functioning, and overall quality of life (Barton, Steed, Strain, Dunlap, Powell, & Payne, 2014; Schonfeld et al., 2015). Additionally, children with higher levels of social competence are less likely to display challenging behaviors, further reinforcing the importance of supporting social–emotional development in the early years (Dunlap & Fox, 2011).

The spatial context of early childhood education such as rural versus urban settings and community income levels has long been recognized as an important determinant of children's opportunities and developmental outcomes (Pianta, 2018). Access to preschool, teacher supply and training, family resources, and community services varies systematically across locations, shaping children's development in mathematics, literacy, social emotional skills, and creativity. For instance, studies have found small-to-moderate rural–urban differences in early mathematics performance, typically favoring urban children (McCoy et al., 2016). However, when socioeconomic status (SES), preschool access, and program quality are controlled, these differences are substantially reduced. Large-scale readiness studies have

reported rural disadvantages, yet evaluations of high-quality rural curricula show math gains comparable to those of urban peers (Walters, 2015).

Disparities are frequently linked to access rather than ability. Rural populations often face limited center-based care and fewer home literacy resources, while urban children in high-poverty neighborhoods may experience higher rates of behavioral challenges. Thus, location tends to shape the type of socioemotional risk rather than children's developmental potential. Creativity, by contrast, remains an under-researched domain across contexts. Evidence from program evaluations confirms that outcomes are contingent on quality and design. For example, Head Start outcomes vary across rural and urban sites, but well-implemented rural programs have demonstrated literacy and socioemotional gains comparable to those in urban settings (Friedman-Krauss, et al., 2017).

Most existing studies rely on broad readiness indicators or program-specific evaluations, with less attention to how spatial context interacts with family engagement and child characteristics across developmental domains particularly during periods of disruption. The COVID-19 pandemic introduced unique challenges for early childhood programs, especially in sustaining parent-teacher relationships under constrained conditions. Examining how these relationships functioned during the pandemic provides important insights into how programs met their goals and what adjustments may be needed in future crises. Accordingly, this study explores parent-teacher relationships during COVID-19 and parents' perceptions of their children's development in mathematics, literacy, social-emotional skills, and creativity.

Method

The Family Provider/Teacher Relationship Quality (FPTRQ) measure was used (Porter, Bromer, & Forry, 2015) to measure parent teacher relationships. This measure is comprised of three constructs. The Knowledge construct that has the family specific subscale which measures how well teachers know the families that they work with. The second construct, practices has 4 subscales collaboration that examines how well teachers provide support to parents, communication that tests how well teachers communicate with families,

responsiveness that measures how teachers meet parent needs and the family focused concerns that examines how teachers focus on family concerns. The third is the attitudes construct measures how teachers go above and beyond to help families succeed and is comprised of 3 subscales, commitment that measures how teachers understand family contexts affecting families, understanding context and respect which assesses how teachers consider views/perspectives/culture of the families they work with. Each of the subscales contains questions examining how teachers are relating to parents. Some of the questions are like how comfortable would you feel sharing information with your child care provider or teacher about your family on various items, since September how often have you met with or talked to your child care provider or teacher about your child's experiences at school, abilities, learning; how often have you offered books or materials on parenting or suggested activities for you and your child to do together, how often does your teacher ask you about your family. Mean scores for each subscales were obtained and used for analysis.

To assess parents' perceptions of children's learning we added 4 questions on children's that were adopted from the parent survey used in the ECLS-K 2024 study (U.S. Department of Education, 2024). These questions were focused on social emotional development, literacy, math, and other demographic information such as program closure and distance learning availability. Parents were asked to rate on a 4-point Likert scale of 1 = very bad, 2= not at all well, 3= just well, and 4- very well on the question "what would you say about your child in how they are doing at school in social emotional development. This same question was asked for literacy, math, and creativity?". During the development of the FPTRQ tool, the eight subscales demonstrated acceptable internal consistency, with Cronbach's alpha coefficients generally exceeding the 0.70 threshold and most falling within the good to excellent range. The FPTRQ measures underwent comprehensive development and field testing including expert review, cognitive interviews, and pilot studies to ensure their content and cultural relevance across diverse early childhood settings (Porter et al., 2015). No similar study was the researcher aware of that had assessed parent teacher relationships in correlation to the 4 learning areas using the newly developed measure FPTRQ.

The study used the following research questions:

1. How did early childhood parents rate their children's social emotional, literacy, math, and creativity during the COVID-19 pandemic?
2. How were parents' ratings influenced by parent teacher relationships?

Early Childhood Parent-Teacher Relationships During COVID-19 and Parent Ratings on Children's Learning

Table 1. *Demographics of sample*

Variable	N	%	Variable	N	%
Gender			Income		
Boys	36	43	Less than \$25,000	6	8
Girls	44	52	\$25,000 - \$34,999	8	10
			\$35,000 – 44,999	20	25
			45,000 – 54,999.	19	24
			55,000 – 74,999	12	15
			\$75,000 +	15	19
Age of child			Language Used at Home		
0-2 Years	28	35	English	51	65
3-5 Years	52	65	English & Spanish	9	11
			English & another language	1	1
Race			Distance Learning		
White	42	53	Yes	54	77
Black/African American	8	10	No	16	23
American Indian/Alaska Native	23	29			
Asian	7	8			
Program Location			Parent experience with provider/teacher		
Rural	37	47	Less than 6 months	8	10
Urban	42	53	6 months– 1 year	19	24
Type of Program			1 – 2 years	24	3
Head Start	21	26	2+ years	29	36
Private centers	36	45			
Family childcare	21	26			
Education			No. of childcare providers worked with		
Less than High School Diploma	1	1	1	18	23
GED or High School Diploma	15	19	2-3	32	40
Some college	16	20	4-5	29	31
Associate degree	23	29	More than 5	5	6
Bachelor degree	20	25	Less than 1 year	3	4
Graduate School degree	5	6			
Hispanic or Latino Origin					
Yes	26	33			
No	53	67			

(N = 83)

Participants & Data Collection

Participants were parents of children enrolled in early childhood programs in a mid-western state that anonymously volunteered to participate after completing an informed consent. The study was approved by the author's institution IRB. The list containing the early childhood programs director's contacts was obtained from the director of early learning programs in the mid-western state. The data was collected in the spring of 2021 where the directors shared the link with parents through email or their social sites. The pandemic started in 2019, and many programs adjusted repeatedly between 2019 and spring. Most program closures began in spring 2020 and by 2021 programs had started running again while adjusting despite the continual COVID-19 pandemic (UNICEF, 2021). Parents were asked to reflect on their experiences of the year 2019 when the COVID-19 began while responding to the survey in spring 2021. 83 parents completed the survey. The participants demographic information can be found in Table 1. Since participation was voluntary, these parents may differ systematically from those who chose not to take part. Probably the parents who volunteered could be more interested or invested in child development, more confident in their parenting, or had more time and resources available. In addition, because parents were aware that the survey focused on parenting or early childhood, they might have provided socially desirable responses portraying themselves as more attentive, nurturing, or engaged than they actually are. This is one of the study's limitation.

Results

Data was analyzed using means, frequencies, percentages and running independent t tests and One Way ANOVA to analyze differences in parent ratings according to parent demographics. Before conducting the ANOVAs, the assumptions of normality and homogeneity of variance were assessed. Normality was evaluated using the Shapiro Wilk test, and homogeneity of variances was examined using Levene's test. The results indicated that these assumptions were met, allowing for the use of parametric tes

Parent Ratings on Children's Learning

In order to test parent's ratings of their children's learning during COVID-19 the frequencies of parent's responses were calculated for each of the learning areas (social emotional, reading, math, and creativity) on how many parents chose each rating (very bad, not at all well, just well, and very well) (Table 2). Overall social emotional learning received the lowest (5%) percent of parents indicating their children were doing very well and also the lowest of parents who said their children were doing very bad (21%). Creativity received the highest percent of parents rating children in doing very well (19%) but also the largest number of parents rating doing very bad (29%). Interestingly reading and Math came third and had the same percentage of parents rating their children doing very bad (26%) with about 10% doing well. Considering it was a challenging time, the author expected that the rating just well will resonate more with parents. The researcher found that most parents (29%) were in agreements that their children were doing just well in social emotional compared to the other three areas, reading, math and creativity. Of the four learning areas, creativity had the largest number of parents rating their children doing very bad (29%), followed by reading and math at 26% and then social emotional development (25%). Though this were very small percentage differences of 2-3.

Table 2. *Parents' Ratings on Children's Learning*

Developmental area	Very Bad		not at all well		Just well		very well	
	F	%	F	%	F	%	F	%
Social Emotional	21	25	31	37	24	29	4	5
Literacy	22	26	36	43	13	16	9.	11
Math	22	26	34	41	16	19	8.	10
Creativity	24	29	24	29	16	19	16.	19

N=80 (missing = 3)

Differences across Demographic Variables

This study also looked at if program closure in the different months contributed to how parents rated their children. An overall mean of parent ratings in all the developmental domains (social emotional development, reading, math and creativity) was used in the

analysis with the means of parent ratings in each of the four learning domains social emotional development, literacy, math and creativity. The means of parent's ratings were significantly different for closed programs in the months of March ($t(77) = 2.369$, $p = .010$, July ($t(77) = 1.984$, $p = .051$), September ($t(77) = 3.663$, $p = .001$), December 2020 ($t(77)$, $t = 2.037$, $p = .045$) and March 2021 ($t(77) = 3.531$, $p = .001$). During these months there were more closed programs than open except for April 2021. Parents in the closed programs rated their children as performing better than those in open programs (means in Table 3).

Table 3. *Independent t-test on Parent's Ratings based on Programs Closed/Open*

<i>COVID-Period</i>	Parent Rating for closed Programs		Parent Rating for open Programs	
	<i># parents report of closed programs</i>	<i>Parent children Rating(mean)</i>	<i># of parents report open programs</i>	<i>Parent Ratings of children (mean)</i>
March 2020	57	2.3*	22	1.9
April	47	2.1	32	2.2
May	51	2.2	28	2.1
June	38	2.1	41	2.6
July	51	2.3*	29	2.0
August	39	2.1	40	2.2
September	51	2.3*	28	1.8
October	37	2.2	42	2.1
November	39	2.1	40	2.1
December	50	2.3*	28	1.9
January 2021	38	2.2	40	2.1
February	38	2.2	41	2.1
March	44	2.4*	35	1.9
April 2021	28	2.4*	50	2.0

N= 79 programs,

Parent Rating is on a 4-point scale with 4 being highest level of rating (doing very well)

*= significant differences in parent ratings between parents of closed and open programs

This study found significant difference in how parents with distance learning versus those that did not have distance learning rated how their children were doing during COVID - 19. This significant difference was seen in social emotional development $F(1, 68) = -2.738$, $P = .004$ and creativity $F(1, 68) = -6.523$, $P = .007$. Parents that did not have distance learning rated their children performing better in social emotional development ($2.8 \pm .84$) than those

without ($2.1 \pm .57$). They also rated children performing better in creativity ($3.6 \pm .80$) than the parents who had the distance learning option ($2.1 \pm .85$). Differences in parents' ratings of children in math and reading were not significant (Table 4).

Table 4. *Independent t test on Parent's Ratings according to Distance Learning*

Parent Ratings	M			t	df	p
	DL	No DL	SD			
Social Emotional	2.1	2.8	.84/.57	-2.738	78	.004*
Reading	2.3	2.0	.99/.37	1.019	78	.312
Math	2.2	2.1	.99/.34	.2413	78	.81
Creativity	2.1	3.6	.85/.80	-6.523	78	.001*

DL- Distance learning = 54; Non-DL- No distance learning = 16

N = 70 (missing 13)

*= significant difference parent rating between parents with distance learning and no distance learning

Parents who identified as Caucasian were grouped into that category, all the other non-Caucasian (8 Black/African American, 23 native American Indian/Alaska Natives, 3 Asian Indian, 1 Chinese, 1 Vietnamese, 1 other Asian, and 1 Filipino) parents were grouped into non-Caucasian because of the small sample sizes. Because of the small sample size, this classification was applied to identify potential effects that may warrant further investigation in a larger, more targeted study. There were significant differences among the two racial groups in how they rated their children's creativity during COVID- 19 $t(78) = -4.985, p .001$. The Caucasian parents rated their children's creativity lower ($1.8 \pm .75$) than the non-Caucasian (2.9 ± 1.2). There were also significant differences in social emotional development $t(78) = -1.771, p = .004$ with Caucasian parents rating their children lower ($2.0 \pm .95$) compared to the non-Caucasian parents ($2.3 \pm .87$). There were no significant differences in reading and math. Both groups rated their children the same in math and reading (Table 5).

The means from Table 6 show that the lower income parents rated their children lowest across all the learning domains. There, were significant mean differences in social emotional development $t(76) = 4.92, p = .004$. The Tukey post hoc revealed this difference among the parents who earned between \$0 – \$34,999 (low income) and those that earned \$35,000 –

Table 5. *Independent t test on Parents' Ratings according to Race*

Parent Rating	M		SD	t	df	p
	Caucasian	non-Caucasian				
Social Emotional	2.0	2.3	.95/.87	-1.771	78	.004
Reading/literacy	2.0	2.2	-.88/.95	.2413	78	.312
Math	2.0	2.2	.99/.34	-1.020	78	.81
Creativity	1.8	2.9	.75/1.2	-4.985	78	.001

N= 80 (missing 3); Caucasian = 42; non-Caucasian = 38

\$44,999 (middle income). The middle-income parents had higher mean ratings ($2.6 \pm .75$) than the lower incomes ones ($1.6 \pm .75$). Also, significant mean ratings were seen in how parents rated their children on creativity $F(76) = 9.322$, $p = .001$. The middle-income parents \$35,000 – \$44,999 had higher mean ratings (3.2 ± 1.2) than the higher income ones \$ 55,000 – \$75,000 parents ($2.2 \pm .94$) on creativity and social emotional development. Overall, the lower income parents had lower ratings across all the developmental domains.

Table 6. *One Way ANOVA on Parents' Ratings according to the Income Variable*

Parent Rating	Income (\$)	M	SD	F	P
Social emotional				4.902	.004*
	0 – 34,999	1.6	.75		
	35,000 – 44,999	2.6	.75		
	45,000 – 54,999	2.0	.78		
	55,000 – 75,000	2.2	.89		
Reading				.788	.504
	0 – 34,999	1.9	.92		
	35,000 – 44,999	2.0	.46		
	45,000 – 54,999	2.1	1.0		
	55,000 – 75,000	2.3	1.1		
Math				1.624	.191
	0 – 34,999	1.6	.92		
	35,000 – 44,999	2.3	.65		
	45,000 – 54,999	2.2	.76		
	55,000 – 75,000	2.2	1.2		
Creativity				9.322	.001*
	0 – 34,999	1.6	.94		
	35,000 – 44,999	3.2	1.2		
	45,000 – 54,999	2.0	.78		
	55,000 – 75,000	2.2	.94		

N (0 – 34,999 = 14; 35,000 – 44,999 = 20; 45,000 – 54,999 = 19; 55,000 – 75,000 = 27); *sig. <.05

The parents with younger children (0-2 years) significantly $t() = , p =$ (Table 7) rated their children doing well during the pandemic in social emotional development ($2.4 \pm .95$) and creativity (2.9 ± 1.2) than the parents with older children (3-5 years old) in social emotional development ($2.0 \pm .78$) and creativity ($2.0 \pm .93$). Differences in parent's ratings of children in math and reading were not significant.

Table 7. *Independent t test on Parent' Ratings according to Age of Child*

Variable	M		SD	t	p
	0-2 years	3-5 years			
Social emotional	2.4	2.0	.95/.78	2.258	.027*
Reading	2.1	2.1	.90/.97	-.285	.777
Math	2.2	2.1	.91/.95	.375	.705
Creativity	2.9	2.0	1.2/.93	3.536	.001*

N; 0-2 years = 28; 3-5 years = 52; *sig. <.05

This study found parents in the rural programs significantly (Table 8) rated their children lower in social emotional development learning ($1.8 \pm .91$) during COVID – 19 compared to the parents in urban programs ($2.4 \pm .73$), $t(77) = -3.335$, $p = .001$. This similar finding was found for creativity with parents in the rural programs rating children lower (2.1 ± 1.0) compared to those in urban programs (2.5 ± 1.1), $t(77) = -1.728$, $p = .044$. There were no significant differences in math and reading.

Table 8. *Independent t test on Parent Ratings according to Program Location*

Variable	M		SD	t	p
	Rural	Urban			
Social emotional development	1.8	2.4	.91/.73	-3.335	.001
Reading	2.0	2.2	1.1/.81	-.896	.187
Math	2.3	2.0	1.1/.81	1.53	.065
Creativity	2.1	2.5	1.0/1.1	-1.728	.044

Correlations of Parent Teacher Relationships and Children's Ratings

The correlation between parent teacher relationships and children's rating was negative ($r = -.381, n = 80, p = .001$). For social emotional development there were significant negative correlations with family specific knowledge, collaboration, responsiveness, communication, and commitment subscales except positive correlations with understanding contexts and respect and no correlations with family focused concerns (Table 9). For reading there were also no significant correlations with family focused concerns but positive significant correlations with understanding contexts and significant negative correlations with family specific knowledge, collaboration, responsiveness, communication, commitment and respect. For Math there were negative significant correlations with family specific knowledge, collaboration, responsiveness, and commitment, no significant positive correlations with any of the subscales and no correlations with communication, family focused concerns, understanding contexts and respect. For creativity there were significant negative correlations with family specific knowledge, collaboration, responsiveness, communication and commitment. Positive correlations with respect and no significant correlations with family focused concerns and understanding contexts.

The understanding context subscale was comprised of 4 items asking parents to rate how they felt their teachers judged them based on their faith/religion, culture and values, race/ethnicity, and financial situation. Out of the 83 parents in the study, over 45 parents agreed that teachers were judging them based on those criteria. Between 35 – 40 parents agreed feeling being judged based on their faith and religion, culture and values, and financial situation. Twenty five felt the same for race and ethnicity.

Table 9. *Correlations on Parent Ratings and Parent Teacher Relationships*

Variable	M	SES r	Reading r	Math r	Creativity r
Family-Specific Knowledge	41.5	-.358*	-.249*	-.380**	-.451**
Collaboration	49	-.445**	-.425**	-.301**	-.515**
Responsiveness	31.7	-.495**	-.385**	-.280*	-.487**
Communication	21.2	-.435*	-.324**	-.136	-.536**
Family focused concerns	7.7	-.146	-.270	-.151	-.199
Commitment	36	-.578**	-.355**	-.285*	-.533**
Understanding contexts	20	.316**	.330**	.217	.232*
Respect	18	.435**	.450**	.021	.434**

SES= Social emotional development; * $p < 0.05$; ** $p < 0.01$

Discussions

Children Outcomes & Demographics

The data shows that children were not doing well in all the four developmental areas. Some of the challenges during COVID - 19 were issues on inequitable access to technology resources, the negative impacts of distance learning to social emotional development, the low levels of student participation, the lack of knowledge in virtual teaching, lack of technology support, and the lack of developmentally appropriate ways to engage students in virtual environments (Lavidos, Apostolou, & Papadakis, 2022). The other challenge was the content being taught. For example, it was found that most teachers' math activities were mainly counting, kinetic activities with numbers, enumeration, counting and writing in worksheets, construction/formation of numbers with similar materials and activities with dates (Lavidos,K., Apostolou, Z., & Papadakis, S., 2022).It was difficult for teachers to adapt their curriculum to the various learning modes they were subjected to. Further examination of these challenges can give insight into possible ways to make it easier for teachers to provide quality teaching in the midst of challenges like this.

The non-significant rating differences among the income groups in literacy and math calls for further investigation for the cause of the differences. The mean scores for all the groups were below to average between 1.9 and 2.3. There were no effects of distance learning availability in parent's rating of children's learning in math and literacy but in social emotional and creativity. It was probably easier for parents to control learning of children in math, and literacy than in the social emotional development and creativity. Children needed each other to develop socially but math and literacy could be supported by online resources such as workbooks or online apps and links.

Parents' ratings according to race was significant. When looking at the survey rating scale which was 1-4, both groups of parents averagely scored their children in the social emotional development, reading, and math. It showed that all groups of parents were not very satisfied in how their children were doing in these three areas. Also, low-income parents rated children lower, but middle income tended to rate high and high income rated averagely. A similar study looking at parent teacher relationships of different income groups in early childhood

programs also identified that higher income parents tended to rate parent teacher relationships lower (Keengwe & Onchwari, 2022). It is not clear the factors contributing to these ratings. More qualitative studies examining what relationships mean for different groups of parents is necessary. COVID-19 had more impact on social emotional development and creativity of older children than younger children. The most affected group were the older children, who's interaction with other children was limited. In this age group children are in the optimal period of development of many essential attitudes and behaviors related to social competence (Kostelnik, Whiren, Soderman, Stein, Gregory, 2018).

Children Outcomes and Parent Teacher Relationships

The study's analysis of the Family and Provider/Teacher Relationship Quality (FPTRQ) subscales revealed a striking disconnect, most subscales particularly family specific knowledge, collaboration, responsiveness, communication, and commitment were negatively correlated with children's developmental outcomes, especially in reading, math, and creativity. Only the "understanding context" and "respect" subscales showed positive correlations, particularly in social-emotional development. These findings suggest that when teachers acknowledged and validated the challenges families faced (financial, cultural, and emotional) parents perceived more positive outcomes for their children. Conversely, traditional indicators of teacher-family engagement were insufficient or even counterproductive in pandemic conditions.

The weak or negative correlations between parent teacher relationship quality and learning outcomes may signal a need to reconfigure the FPTRQ tool to better capture relationship dynamics during crises. For example, "family-focused concerns" did not correlate with developmental outcomes, possibly because the subscale's items reflected traditional classroom settings rather than remote learning contexts. A reexamination of these measures is warranted to include context-sensitive indicators that account for emergency or hybrid learning environments. In particular, math outcomes were negatively correlated with key FPTRQ subscales yet showed no relationship with understanding context or respect suggesting that socio-cultural respect may be necessary but not sufficient for academic growth in specific domains. Communication, which should ideally encompass the sharing of

academic resources, also failed to correlate with parent math ratings, suggesting a misalignment between communication practices and domain-specific instructional support. Creativity followed a similar pattern of negative correlations with most relationship subscales except for understanding context and respect. These findings imply that while teachers may have intuitively supported creative expression during the pandemic, other developmental domains like math and literacy were underserved by existing parent-teacher engagement models.

The negative correlation between parent teacher relationship scores and child outcomes aligns with pandemic era reports that families experienced elevated stress and role strain, and that teachers and parents increased communication around children who were struggling. Several qualitative and survey studies during COVID-19 document intensified parent-teacher interactions in response to children's difficulties and high parental burden, suggesting reverse causality and shared-reporter bias as plausible explanations for our finding (Burns et al., 2023; Levickis et al., 2022; Connelly et al., 2024).

Interestingly, the understanding contexts and respect subscales of the parent teacher relationship scale maintained positive associations with children's outcomes, suggesting these relational qualities may have buffered families' stress during COVID-19 disruptions. Teachers who demonstrated sensitivity to families' circumstances and conveyed respect for parents' expertise likely helped parents feel validated and competent, thereby supporting more effective coping and sustained engagement (Burns et al., 2023; Connelly et al., 2024). In line with ecological and family-systems perspectives, such relational attunement may have strengthened the mesosystem link between home and school, fostering resilience despite heightened stressors.

Ecological Contexts and Parent Teacher Relationships

The data showed no relationship with the ecological contexts (microsystems, mesosystems, macrosystems, and exosystems) yet Bronfenbrenner's Ecological Systems Theory (1979; 1994) emphasizes that child development occurs within nested systems of interaction from immediate microsystems to broader macrosystems. The family provider teacher relationship is situated within this ecology, where collaboration and communication across contexts are

central to children's academic and social emotional success (Bronfenbrenner & Morris, 2006). It is also possible that during the pandemic most of these ecological contexts were ineffective or affected that provision of the expected relationships and services was impaired, thus the possible reason for these non-correlations.

Implications

The findings suggest that the parent teacher relationships established during the COVID-19 pandemic, as measured by the FPTRQ (Family and Provider/Teacher Relationship Quality) tool, were insufficiently aligned with the emergent and dynamic needs of children and families. Specifically, the FPTRQ framework did not capture the kind of support required to sustain children's learning and well-being during a crisis. This points to the need for developing more context-sensitive and developmentally targeted assessments of parent-teacher relationships tools that are capable of adapting to extraordinary situations such as pandemics.

From the perspective of Compensatory Theory (Helm & Huber, 2023) which posits that additional support is necessary to counterbalance disadvantage and to level developmental opportunities for children at risk, the inadequacy of parent teacher engagement during COVID-19 becomes even more concerning. When educational inequities and social-emotional disruptions are compounded by systemic stressors, strong, responsive relationships between educators and families are not simply helpful they are essential. In this light, the absence of significant correlations between communication and parent ratings of children's math learning suggests a missed opportunity to act as a compensatory mechanism. Communication practices may not have been specific, frequent, or tailored enough to support families in guiding math development at home.

Similarly, the lack of significant relationships between "understanding context" and parent ratings of children's math outcomes underscores the need for a more intentional approach to aligning relational efforts with academic domains. During crisis situations, teachers must be equipped not only to recognize the socio-cultural and economic realities of families but also to leverage this understanding into actionable supports that advance children's learning,

particularly in domains such as math where at-home reinforcement is often limited.

Moreover, the non-significant relationship between the “family-focused concerns” subscale and parent ratings in both math and social-emotional development may indicate potential misalignment between what is measured by this domain and what families actually need. Compensatory Theory (Helm & Huber, 2023) would argue for more targeted, developmentally relevant supports during adverse circumstances especially in domains that rely on interpersonal interaction and emotional security, such as social-emotional development. These findings suggest several areas for further inquiry. First, qualitative research is needed to explore how parents and teachers perceive “supportive” relationships during crises. Such studies can offer rich, contextualized insights into which forms of communication, collaboration, and responsiveness matter most under stress. Second, future research should investigate how parent teacher relationships contribute to specific developmental domains. For example, studies exploring what types of relational engagement best support early math or science development could help educators deliver more domain aligned support.

The findings underscore that in crisis contexts, relational quality not communication frequency supports family resilience and positive child outcomes. Teacher professional development should therefore cultivate empathy, contextual understanding, and respect as core competencies, equipping educators to engage families as partners under stress. Building teachers’ relational capacity is essential not only for effective crisis response but also for fostering enduring family school partnerships that promote child well-being beyond the pandemic (Burns et al., 2023; Connelly, et al., 2024). A crisis-responsive FPTRQ could therefore include new indicators of adaptive relational quality, such as flexibility, contextual understanding, and remote collaboration competence. Items could assess whether teachers adjusted communication to families’ capacities, demonstrated empathy amid stress, and co-constructed realistic learning expectations. Integrating measures of digital accessibility, emotional tone, and balance of communication would provide a more nuanced assessment of partnership quality under conditions of uncertainty (Burns et al., 2023; Connelly et al., 2024).

Also, a reconceptualization of parent teacher relationships is warranted not as a static construct, but as a flexible, responsive, and domain-specific partnership. During times of adversity, relationships should function as compensatory mechanisms, actively working to

reduce the negative effects of systemic disruption on children's learning and development. Future research could explore home school partnerships across countries to identify how differing educational policies, cultural norms, and pandemic recovery strategies influence family teacher collaboration and children's learning outcomes. Comparative studies could examine variations in communication practices, parental engagement, and teacher support during and after pandemic disruptions, highlighting best practices and policy lessons. Additionally, longitudinal cross-national research could assess the sustainability of these partnerships and their long-term impact on student learning and well-being in post-pandemic contexts.

Limitations

The manuscript effectively builds its case by presenting quantitative data on the impact of COVID-19 on children's learning. It highlights important findings, including declines in children's social-emotional development, literacy, mathematics, and creativity, while examining the role of parent teacher relationships in mitigating these challenges. The argument could be further strengthened by incorporating more in-depth qualitative insights or case studies that capture the lived experiences of families and educators. The study relies on self-reported data from parents, which may introduce bias, and the author acknowledges the limitations of the sample restricted to one state and relatively small in size which constrains the generalizability of the findings and applicability of results to other geographic or cultural contexts. The cross-sectional design prevents conclusions about causality between family teacher relationships and children's learning outcomes. Future research could address these limitations by using larger, more diverse samples and longitudinal designs to explore how these relationships influence learning trajectories over time. Also, the exclusive use of a four-point Likert scale may not fully reflect the diversity of parent experiences and perceptions. Including open-ended questions or qualitative interviews would provide richer and more nuanced data.

References

- Ares, G., Bove, I., Vidal, L., Brunet, G., Fuletti, D., Arroyo, A., & Blanc, M. V. (2021). The experiences of social distancing for families with children and adolescents during the coronavirus (COVID-19) pandemic in Uruguay: Difficulties and opportunities. *Children and Youth Services Review, 121*, 105906.
<https://doi.org/10.1016/j.chilyouth.2020.105906>
- Bao, X., Qu, H., X., Zhang, R., & Hogan, T. (2020). Literacy loss in kindergarten children during COVID-19 School Closures Authors: Retrieved May 18, 2023, from https://www.researchgate.net/publication/341367955_Literacy_Loss_in_Kindergarten_children_during_COVID-19_School_Closures
- Barnett, M. A., Paschall, K. W., Mastergeorge, A. M., Cutshaw, C. A., & Warren, S. M. (2020). Influences of parent engagement in early childhood Education centers and the home on kindergarten school readiness. *Early Childhood Research Quarterly, 53*, 260 - 273.
- Barnett, W. S., Grafwallner, R., & Weisenfeld, G. G. (2021). Corona pandemic in the United States shapes new normal for young children and their families. *European Early Childhood Education Research Journal, 29*, 109-124.
- Barton, E. E., Steed, E. A., Strain, P., Dunlap, G., Powell, D., & Payne, C. J. (2014). An analysis of classroom-based and parent-focused social-emotional programs for young children. *Infants & Young Children, 27*(1), 3-29.
- Boethel, M. (2003). *Diversity: School, family and community connections*. National center for family & community connections with schools.
- Bronfenbrenner, U., & Morris, P. (2006). *The bioecological model of human development*. In R. Lerner (Ed.), *Handbook of child psychology* (6th ed.). Wiley.
- Brofenbrenner, U. (1994). *Ecological models of human development*. In *international encyclopedia of education*, Vol. 3, 2nd Ed. Oxford Elsevier
- Bronfenbrenner, U. (1979). *The ecology of human development*. Harvard University Press.
- Burns, R. D., Bai, Y., Fu, Y., Pfladderer, C. D., & Brusseau, T. A. (2019). Parent Engagement and Support, Physical Activity, and Academic Performance (PESPAAP): A Proposed Theoretical Model. *International Journal of Environmental Research and Public Health, 16*(23), 4698.

- Connelly, A. S., Shaik, N., & Chigona, A. (2024). “‘We grow together.’ Parent participation in an early childhood care and education centre.” *South African Journal of Childhood Education*, 14(1), a1611
- Jegatheeswaran, C., Burns, S., & Perlman, M. (2025). Examining the Relationships Between Parenting Practices, Children’s Temperament, and Academic and Behavioral Outcomes in Lower-Income Families. *Behavioral Sciences*, 15(6), 786.
- Carlsson, M, G B Dahl, B Öckert and D Rooth (2015), “The Effect of Schooling on Cognitive Skills”, *Review of Economics and Statistics* 97, 533–547.
- Christenson, S. L., & Sheridan, S. M. (2001). *Schools and families: Creating essential connections for learning*. Guilford Press.
- Crockenberg, S., Jackson, S., & Langrock, A. M. (1996). Autonomy and goal attainment: Parenting, Gender, and children’s social competence. *New Directions for Child and Adolescent Development*, 73, 41 – 55. <https://doi.org/10.1002/cd.23219967305>
- Dunlap, G., & Fox, L. (2011). Function-based interventions for children with challenging behavior. *Journal of Early Intervention*, 33(4), 333-343.
- Epstein, J. L. (1996). Perspectives and previews on research and policy for school, family and community partnership. In: A. Booth & J. F. Dunn (Eds.). *Family school links: How do they effect educational outcomes?* (pp. 209-246). Mahwah, NJ: Lawrence Erlbaum Associates.
- Epstein, J. L. (2011). *School, family, and community partnerships: Preparing educators and improving schools* (2nd ed.). Routledge.
- Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational psychology review*, 13(1), 1-22.
- Fantuzzo, J., Tighe, E., & Childs, S. (2004). Family involvement questionnaire: Multivariate assessment of family participation in early childhood education. *Journal of Educational Psychology*, 96(2), 367-378.
- Friedman-Krauss, A. H., Connors, M. C., & Morris, P. A. (2017). Unpacking the treatment contrast in the head start impact study: To what extent does assignment to treatment affect quality of care?. *Journal of Research on Educational Effectiveness*, 10(1), 68-95.
- Galindo, C., & Sheldon, S. B. (2012). School and home connections and children's kindergarten achievement gains: The mediating role of family involvement. *Early childhood research quarterly*, 27(1), 90-103.

- Gonzalez, M., Loose, T., Liz, M., Perez, M., Rodriguez-Vincon, J. I., Tomas-Llerena, C., & Vasquez-Echeverria, A. (2022). School readiness losses during the COVID-19 outbreak. A comparison of two cohorts of young children. *Child development*, 4, 910-924.
- Hae M. Y., Yu J. C., Hyun J. K., Jin H. K. (2021). A mixed methods study of early childhood education and care in South Korea: Policies and practices during COVID-19. *Early Childhood Education Journal*, 49, (6), 1141-1154.
- Halgunseth, L., Peterson, A., Stark, D., & Moodie, S. (2009). Family engagement, diverse families, and early childhood education programs: An integrated review. *Young Children*, 64(5), 56-58.
- Helm, C., Huber, S.G. (2023). School quality and COVID-19-related compensatory measures. *Z f Bildungsforsch* 13, 215-236. <https://doi.org/10.1007/s35834-023-00392-8>.
- Henderson, A. T., & Mapp, K. L. (2002). A new wave of evidence. Austin, TX: National Center for Family and Community Connections with Schools.
- Hu, X., Chiu, M. M., Leung, W. M. V., & Yelland, N. (2021). Technology integration for young children during COVID-19: Towards future online teaching. *British Journal of Educational Technology*, 52, 1513-1537
- Keengwe, G., & Onchwari, A. (2022). Assessment of parent-teacher relationships in early childhood education programs during the Covid-19 Pandemic. *Early Childhood Education Journal*. doi: <https://doi.org/10.1007/s10643-022-01431-1>
- Kim, E. M., & Sheridan, S. M. (2015). Foundational aspects of family-school connections: Definitions, conceptual frameworks, and research needs. In S. M. Sheridan & E. M. Kim (Eds.), *Foundational aspects of family-school partnership research* (pp. 1-14). Springer International Publishing/Springer Nature.
- Kohl, G. O., Lengua, L. J., & McMahon, R. J. (2000). Parent involvement in school conceptualizing multiple dimensions and their relations with family and demographic risk factors. *Journal of school psychology*, 38(6), 501-523.
- Kostelnik, M. J., Soderman, A. K., Whiren, A. P., & Rupiper, M. L. (2018). *Guiding children's social development and learning: Theory and skills*. Cengage, Boston, MA.
- Lavidos, K., Apostolou, Z., & Papadakis, S., (2022). Challenges and opportunities of mathematics in digital times: Preschool teachers' views: *Educ. Sci.* 12, 459.
- Linnavalli, T., & Kalland, M. (2021). Impact of COVID-19. Restrictions on the social-emotional wellbeing of preschool children and their families. *Educ. Sci.*, 11, 435.

- Marcon, R. A. (1999). Positive relationships between parent school involvement and public school inner-city preschoolers' development and academic performance. *School psychology review*, 28(3), 395-412.
- McCoy, S., J. Banks and M. Shevlin. 2016. "Insights into the Prevalence of Special Educational Needs." Chapter 8, In *Cherishing All the Children Equally? Ireland 100 Years on from the Rising*, edited by J. Williams, 153–174. Cork: Oak Tree Press.
- Minke, K. M., Sheridan, S. M., Kim, E. M., Ryoo, J. H., & Koziol, N. A. (2014). Congruence in Parent teacher relationships: The role of shared perceptions. *The Elementary School Journal*, 114(4), 527-546.
- Moriguchi, Y., Sakata, C., Meng, X., & Todo, N. (2020). Did the COVID-19 pandemic have immediate impacts on Japanese children? Evidence of the socio-emotional behavior National Association for the Education of Young Children (2). Early Childhood Program Standards for Early Childhood Educators. Retrieved August 18, 2025, from <https://www.naeyc.org/resources/position-statements/early-childhood-program-standards>
- Oke, A., Butler, J. E., & O'Neill, C. (2021). Identifying barriers and solutions to increase parent-practitioner communication in early childhood care and educational services: The Development of an online communication application. *Early Childhood Education Journal*, 49, 283-293.
- Pellgrini, A. D. & Glickman, C. D. (1990). Measuring kindergarteners' social competence. *Young Children*, 45, 40-44.
- Pianta, R. C., Whittaker, J. E., Vitiello, V., Ansari, A., & Ruzek, E. (2018). Classroom process and practices in public pre-K programs: Describing and predicting educational opportunities in the early learning sector. *Early Education and Development*, 29(6), 797-813.
- Porter, T., Bromer, J., & Forry, N. (2015). Assessing Quality in Family and Provider/Teacher Relationships: Using the Family and Provider Teacher Relationship Quality (FPTRQ) Measures in Conjunction with Strengthening Families and the Head Start Parent, Family and Community Engagement Frameworks and their Self-Assessment Tools. OPRE Report 2015-56. Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Reynolds, A. J. (1991). Early schooling of children at risk. *American Educational Research*

Journal, 28(2), 392-422.

- Rimm-Kaufman, S. E., La Paro, K. M., Downer, J. T., & Pianta, R. C. (2005). The contribution of classroom setting and quality of instruction to children's behavior in kindergarten classrooms. *The elementary school journal*, 105(4), 377-394.
- Schonfeld, D. J., Adams, R. E., Fredstrom, B. K., Weissberg, R. P., Gilman, R., Voyce, C., & Speese-Linehan, D. (2015). Cluster-randomized trial demonstrating impact on academic achievement of elementary social-emotional learning. *School Psychology Quarterly*, 30(3), 406.
- Spiteri, J., Deguara, J., Muscat, T., Bonello, C., Farrugia, R., Milton, J., Gatt, S., & Said, L. (2023). The impact of COVID-19 on children's learning: A rapid review. *The Educational and Developmental Psychologist*, 40(1), 5-17.
<https://doi.org/10.1080/20590776.2021.2024759>
- Read, K., Gaffney, G., Chen, A. Imran, A. (2021) The impact of COVID-19 on families' home literacy practices with young children. *Early Childhood Education Journal*, 8, 1429-438
- Shaik, N. (2023). Teaching and learning in early childhood care and education during COVID-19 in a poor community of the Cape Flats, South Africa. *Early Childhood Education Journal* 51, 791–800. <https://doi.org/10.1007/s10643-022-01329-y>
- Soltero-Gonzalez, L., & Gillanders, C. (2021). Rethinking home-school partnerships: lessons learned from Latinx parents of young children during the COVID-19 Era. *Early Childhood Education Journal*, 49, 965-976.
- Vickers, H. S., & Minke, K. M. (1995). Exploring parent-teacher relationships: Joining and communication to others. *School Psychology Quarterly*, 10, 133-150.
- Walters, C. R. (2015). Inputs in the production of early childhood human capital: Evidence from Head Start. *American Economic Journal: Applied Economics*, 7(4), 76-102.
- Wei, Y., Wang, L., Tan, L., Li, Q., & Zhou, D. (2021). Occupational commitment of Chinese kindergarten teachers during the COVID-19 pandemic: predictions of anti-epidemic action, income reduction, and career confidence. *Early Childhood Education Journal*, 49, 1031-1045.