



Montessori Education at a Distance, Part 2: A Mixed-Methods Examination of Montessori Educators' Response to a Global Pandemic

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Abstract: This study offers a contextualized understanding of the distance-learning experiences of Montessori educators and students in the spring of 2020 in the wake of the COVID-19 global pandemic. In this article, we build on results reported in a separate article published in this issue of the *Journal of Montessori Research*. First, we analyzed qualitative data from social media and national virtual gatherings designed to support teachers as they faced the challenges created by the abrupt shift to distance learning. Second, we employed a convergent mixed-methods design to integrate these qualitative findings with the survey results reported in the previous article to provide a richer and more complete perspective on the situation. In our results, we found substantial evidence to support the resilience and durability of the Montessori Method, even in the face of adverse conditions created by a global pandemic. Despite the challenges of adaptation, Montessori educators demonstrated a commitment to the key tenets of Montessori philosophy, such as following the child and employing a holistic perspective on learning and development. While serving the whole child's growth and development remained front and center, Montessori teachers' approach to academics looked very different under distance learning. Still, the ongoing attention to children's social-emotional needs will benefit both teachers and children when they return to the classroom, undoubtedly with lasting effects from pandemic-related isolation and hardship.

Montessori education is a unique approach involving the use of specially designed hands-on learning materials, child-directed work, peer learning, and a carefully prepared classroom environment (Culclasure et al., 2019). Montessori schools were affected by the COVID-19 pandemic, as all schools were in spring 2020. Schools and students around the world faced the requirement to pivot abruptly to distance learning, but this shift left Montessori teachers and children without some of the fundamental tools that comprise the foundation of the Method. This study offers a contextualized understanding of the distance-learning experiences of Montessori educators and students in the spring of 2020 in the wake of the COVID-19 global pandemic.

Montessori Context

Foundations of the Montessori Method

Lillard and McHugh (2019a, 2019b) meticulously documented the foundation of Montessori education, stating that “in Montessori theory, the essential elements of education for human development comprise setting *children free* in a prepared *environment* with a specially trained *teacher*; these three features constitute a Montessori trinity” (p. 3; emphasis added). Three aspects making up the Montessori environment aspect of the triad are (a) physical environment, composed of classroom space and contents, including hands-on materials within which the Montessori curriculum for younger students is embedded and which enable children substantial freedom in their activities; (b) temporal environment, which ideally provides children with uninterrupted, 3-hour work periods daily; and (c) social environment, in which children create a classroom community where they interact and rely on their peers as much as, or more than, their teachers (Lillard & McHugh, 2019a). Attempting to replicate these aspects of the Montessori environment in a distance-learning format, presented an understandable challenge for teachers as well as families and caregivers during the rush to abide by stay-at-home orders in the spring of 2020.

Digital Tools in Montessori Education

Before the pandemic, the Montessori community was just beginning to imagine how digital tools might play a role in the approach, given the historical emphasis on hands-on and real-world activities (Lillard & McHugh, 2019a). Montessori educators tend to discourage the use of screens for the youngest children (under 6)

and limit their use for elementary-aged children to research that supplements real-world materials as a way of extending learning beyond classroom resources (MacDonald, 2016). A tendency also exists to equate “classic” Montessori education to classrooms where only those materials originally designed by Maria Montessori are available, which would clearly preclude digital devices (Lillard, 2012, p. 382). Even so, some Montessorians suggest that Dr. Montessori would have welcomed innovative technology and incorporated it into her Method. Virginia McHugh, former executive director of the organization originally established by Dr. Montessori herself (i.e., Association Montessori Internationale), is quoted by Buckleitner (2015) in a chapter entitled “What Would Maria Montessori Say About the iPad?” saying, “[Dr.] Montessori would appreciate the deep, intuitive connection the iPad fosters between content and user, taking working knowledge to another level” (p. 64). In fact, Buckleitner (2015) described Dr. Montessori as “a bit of a geek” when it came to adopting the new technology of her day (p. 64). Some researchers have begun exploring digital versions of Montessori manipulatives to understand the impact of physical manipulatives versus virtual representations. Results suggest that independent work with an app is less effective than when an app is paired with in-person social interaction, but this work is in very early stages (Eisen & Lillard, 2020). Virtual Montessori programs began emerging over the course of the pandemic (Guidepost Montessori, n.d.). However, as the pandemic closed classrooms across the country with little notice, parents and caregivers engaged in face-to-face learning in the spring of 2020 had no clear way of recreating at home the classroom community or the wide array of high-quality materials that enable the extended concentration required for the uninterrupted work cycle.

Challenges for the Entire Field of Education

Montessori schools were certainly not alone in the rapid shift to a distance-learning format during the COVID-19 pandemic in the spring of 2020. The Learning Policy Institute published a report acknowledging the “daunting challenges” and “huge disruptions” caused by the pandemic for education across the United States (Darling-Hammond et al., 2020, p. v). Many authors in the practitioner literature reported on challenges faced by families and educators in responding to this abrupt shift to distance learning, including mental-health challenges for students and teachers, issues of equity, best practices for distance learning, and resources to support families

(Collins, 2020; Robles, 2020; Schwartz, 2020). A large-scale study of the impact of the shift to distance learning in Switzerland showed that older students (i.e., grades 7–9) were largely unaffected by the school closures in terms of academic learning gains, but younger children (i.e., grades 3–6) demonstrated a slowing of academic growth and an increase in the variability among students. The study suggested that “distance learning arrangements seem an effective means to substitute for in-person learning, at least in an emergency situation, but not all pupils benefit to the same degree” (Tomasik et al., 2021, p. 1). Hoffman and Miller (2020) examined the impacts of school closures on children’s physical and mental well-being, noting that “prolonged school closures have been one of the most disruptive forces in the COVID-19 era” (p. 307). As a result, they acknowledge that “students will return to school with even greater needs than before” (p. 307).

Need for This Study

The challenges reported by the entire field of education affected Montessori schools to an even greater degree because of the unique features of the approach. Montessori education has weathered many storms over its 100-plus-year history, but it is hard to imagine a scenario that would strain the 2,700 U.S. Montessori schools (including roughly 500 publicly funded schools) as much as the distance-learning requirements resulting from a global pandemic (National Center for Montessori in the Public Sector [NCMPS], n.d.). As researchers who study Montessori environments and who have spent a substantial amount of time in Montessori schools, we set out to understand how Montessori educators approached distance learning and consider how it may have affected the educational experiences of Montessori children. The complexity of the issues we examined demanded a mixed-methods approach to provide a more complete understanding of the situation facing educators in the spring of 2020. Thus, we designed a project with three components: a teacher survey that included both qualitative and quantitative data, a qualitative examination of social-media posts in forums created to support Montessori educators, and a qualitative exploration of the discussions among Montessori professionals in national gatherings designed to address distance-learning challenges. Results from the first component, a survey of Montessori educators’ response to the global pandemic, are discussed in detail in another article in this issue of the *Journal of Montessori Research* (Murray et al., 2021). Our overarching research

question framing this mixed-methods study was: How did Montessori educators interpret and apply Montessori principles to serve children and families in these highly unusual circumstances, given that key elements—primarily, hands-on learning with Montessori materials and learning in a community—were missing?

Theoretical and Philosophical Foundations

Pragmatism provided the worldview for our approach to this study because it focuses on the consequences of the research in real-world terms (Creswell & Plano Clark, 2018). This problem- and practice-centered orientation is particularly important in light of the very real challenges teachers faced in the spring of 2020, with consequences that will be felt for years. We structured the theoretical framework of this mixed-methods study around the Montessori logic model, which documents the inputs, programming, and outcomes that comprise the Montessori educational process (Culclasure et al., 2019). We focused on the core of the logic model, or the program implementation portion, which helps to “consider and prioritize” the most critical program aspects (W. K. Kellogg Foundation, 2004, p. 5). Figure 1 outlines the resources, actions, and goals that comprise the programming component of the logic model. The logic model provided a framework for designing the survey, for coding and analyzing the qualitative data, and ultimately for the merging of the data in the mixed-methods analysis. The goal of this three-part study was to obtain a more complete picture of Montessori distance education from teachers’ own perspectives. Theoretical underpinnings that uniquely apply to the qualitative and mixed-methods components are discussed in the sections that follow.

Figure 1.
Excerpt From Montessori Logic Model (Culclasure et al., 2019)

| Programming Across Levels | | |
|-------------------------------------|--|---------------------------------|
| Resources | Actions | Goals |
| Ordered environments | Choose activities of interest | Purposeful activity |
| Broad, interrelated curriculum | Use real-life and manipulative materials | Sustained focus |
| Individualized instruction | Assist and collaborate with peers | Self-discipline and knowledge |
| Positive emotional climate | Resolve disagreements | Compassion for others |
| Clear expectations | Express self artistically | Positive attitude toward school |
| Experiences with nature | Move freely in classroom | Confidence and initiative |
| Adaptation for atypical development | Help maintain the environment | Contributing member of society |

Theoretical Foundation for Qualitative Analysis

The qualitative data played an important role in addressing the overarching research question for this study. Exploring the qualitative components of this mixed-methods study should answer two research subquestions: (a) What were the issues, concerns, and challenges most often raised by Montessori educators within forums designed to support their transition to distance learning? and (b) How can the Montessori logic model be used as a conceptual framework to organize these issues, concerns, and challenges? Before examining our research methods in more detail, we first outline the theoretical justification for using our two chosen qualitative data sources.

National Virtual Gatherings

Many national organizations for educators supported practitioners by providing resources to facilitate collaboration and information sharing while they made the transition to distance learning (Association for Supervision and Curriculum Development, n.d.; National Association for the Education of Young Children, n.d.; National Education Association, n.d.). One of the authors of this article is on staff at NCMPS, which provided resources, including virtual events, as part of its program supporting the field. NCMPS staff transcribed notes during these gatherings to document the challenges teachers were facing, and these notes became a valuable data source for this study. Because secondary analysis of qualitative data involves the use of data that already exist rather than gathering new information from participants, the process is relatively efficient with no additional burden on participants. Chatfield (2020) also identified challenges in analyzing data collected for purposes beyond what had been intended when the data were originally collected and outlined recommendations for researchers who use secondary data. These recommendations include having a clear focus and being ready to refine it; using a thoughtful sampling process when dealing with large amounts of data; considering issues of quality, credibility, and risk of unintentional harm that vary by data type; and carefully choosing analysis strategies while keeping an open mind (Chatfield, 2020). We approached this aspect of the project with a very clear focus and did not have to implement sampling procedures because the volume of data was manageable. Even though the data had already been disclosed in public forums and presented little risk to participants, concerns related to informed consent sometimes exist with this

type of data. Therefore, we considered potential issues of unintentional harm, which we addressed by ensuring data were de-identified. Finally, we followed Chatfield's (2020) recommendation regarding analysis strategies by integrating these data with other data sources to provide a more complete picture.

Data from Social Media

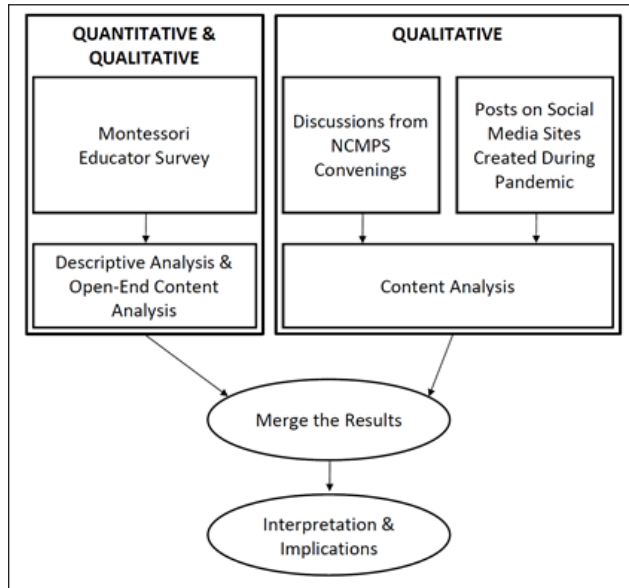
Communities of educators around the world built social-media forums to share support and resources as they rushed to continue serving the needs of their students while pivoting to distance learning (Digital Resources for Distance Learning, n.d.; Global Montessori Network [GMN], n.d.; Higher Ed Learning Collective, n.d.). For the purposes of our study, collecting data in an online discussion forum devoted to Montessori teachers allowed for efficiency, as well as a nonintrusive opportunity for gathering qualitative data through nonparticipant observations of dialogue and reflection by group members (Creswell & Poth, 2017). Social-media data have been used by researchers for many years; one literature review identified 229 qualitative studies of social-media data published from 2007 to 2013 and a subset of 55 studies involving a mixed-methods approach (Snelson, 2016). While these studies are not particularly new, what emerges is a kind of formalization of the field that is evidenced by the recent release of *The SAGE Handbook of Social Media Research Methods* (Sloan & Quan-Haase, 2016). Authors of one chapter in the book admitted that social-media research is not yet a defined discipline but suggested that it is an exciting topic, with much room to use these data to explore novel research questions (Mayr & Weller, 2016). They also recommended recognition of the potential limitations of social media as a data-collection approach, which is why we have chosen to use it as one component of a larger study.

Theoretical Foundation for Merging Mixed-Methods Analysis

We employed a convergent mixed-methods design to integrate these qualitative findings and separately reported survey results to take advantage of the practical value of combining multiple perspectives to address the overarching research question (Creswell & Plano Clark, 2018). Figure 2 provides a conceptual map of the various components of this mixed-methods project and how they were integrated. Using a mixed-methods approach to compare and combine the databases allowed us to

develop more “complete and corroborated” conclusions (Creswell & Plano Clark, 2018, p. 293).

Figure 2.
Conceptual Map of Mixed-Methods Approach



Methods

Data Sources

As mentioned previously, data for this project came from three distinct sources. The first data source was a teacher survey conducted in the summer of 2020, which captured the experience of Early Childhood (EC) and Elementary (El) Montessori educators as they transitioned to distance learning. Details of the survey research are documented in a separate article. The results from that survey were ultimately merged with the two qualitative data sources described here.

National Virtual Gatherings

NCMPS hosted several virtual events for Montessori school leaders and educators to discuss challenges in the sudden pivot to distance learning, providing a venue for practitioners to share how they were addressing the situation. NCMPS staff documented challenges, frustrations, and solutions that were expressed by participants during the virtual gatherings, webinars, and workshops NCMPS hosted. These events ranged from webinars and gatherings (termed “convenings”) with audiences of more than 100 people to small-group workshops of seven to 10 educators:

- Public convenings—March 25, 2020, and May 5, 2020
- Webinar—April 1, 2020
- Workshops—April 9, 16, 23, and 30, 2020, and May 7 and 15, 2020

For each event, NCMPS staff managed the virtual meeting space, facilitated discussion, and took notes. We analyzed these notes for recurring themes.

Social-Media Data

The GMN, a private Facebook group attracting over 3,300 members, was formed early in the COVID-19 crisis and had a mission to provide “a platform to offer Montessori to the children of our Montessori schools, support for families and collaboration with Montessori leaders and guides. . . .” (GMN, n.d.). With permission from the group’s administrator, we collected posts and comments from the Facebook group’s inception on March 18, 2020, through June 13, 2020 to glean emerging information regarding challenges, frustrations, and solutions.

Analysis

The 1,715 social-media posts and virtual gathering responses were collected and analyzed, including 1,440 items from the Facebook group and 275 items from the NCMPS virtual events. We combined these two qualitative data sources into one database and followed the framework outlined by Andreotta et al. (2019) for harvesting and analyzing data from social media. We started with compiling a body of data, compressing the database along a dimension of relevance (that was the logic model for our purposes), extracting the most relevant subset, and performing qualitative analysis on the subset of data. Initial posts and responses were copied into an Excel file and imported into NVivo software (R1). Initial coding used provisional coding (Saldaña, 2009) based on the Programming Across Levels section of the logic model presented by Culclasure et al. (2019). Additional codes emerged that related specifically to the pandemic situation, including shared resources, administrative topics, community, technology, sharing and locating resources, and teacher emotions. To understand the prevalence of each code within the database, we converted the item counts to percentages of the total number of coded items. Therefore, when reporting percentages, these numbers indicate the percentage of all coded items (i.e., 1,715) that reflected a given code.

In merging the qualitative results with the results of the survey of Montessori educators, we pursued the parallel-databases variant to the convergent mixed-methods design. In the parallel-databases variant, the two research strands occurred simultaneously but were analyzed separately. After analyzing the two strands separately, we merged them in the mixed-methods analysis to leverage the practical value of combining multiple perspectives to address the research questions at hand (Creswell & Plano Clark, 2018).

Results

Qualitative Results

While there was substantial overlap with items from the Montessori logic model, the qualitative data revealed important concerns for teachers that were a direct result of distance-learning challenges and that should be highlighted outside of the context of the logic-model framework. The pandemic-related themes that emerged among the coded items primarily dealt with sharing resources, building community, leveraging technology, looking for resources, and navigating teacher emotions (see Table 1). Only teacher emotions require a separate discussion here because these issues could not be addressed within the discussion organized around the logic model.

Table 1
Emerging Overall Themes

| Overall theme as % of all coded items | % |
|---------------------------------------|----|
| Shared resources | 48 |
| Administrative | 18 |
| Community | 14 |
| Technology | 11 |
| Looking for resources | 8 |
| Teacher emotions | 7 |

Teacher Emotions

Teachers seemed to have confidence in Montessori education but struggled with translating it through available tools and without the support structure of colleagues in schools. One teacher reported that “what we found was the biggest components of this experiment had already been proven: the Montessori Method. Our guides are experts at the Montessori Method. We found it was only the use of technology that had to be perfected.” Perhaps because of this climate within schools, teachers expressed on social media the need for social connections

and increased cohesion within schools. Many teachers in the Facebook group described the strain to meet the needs of children and families as schools closed, using terms like “overwhelmed,” “whirlwind,” “wiped-out,” “emotionally and physically drained,” “struggle,” “fatigue” and “anxiety.” One Facebook post summed it up.

The struggle is real! We have also provided packets, weekly schedules with lessons for each area (video instruction by teachers) do daily Zooms and weekly one-on-one video calls. . . , but if you have parents that are struggling and kids struggling, it's hard to know what to do when you feel you are doing everything possible. Sometimes you must realize that not every family will participate and be ok with that.

In response to the expressed frustration, group members made specific suggestions for their peers, such as meditation, online resources, and workshops to manage stress. Several Facebook posts likened the process to an experiment when framing the conversation. One teacher said,

You also have to remind yourself and your team, this is an experiment. It will work for some of your children and not others. You will make adaptations. Some plans that you have will not work, and others that you make up in the moment will have the most success.

During these difficult times, teachers also expressed the need for social connections and increased collaboration within schools. Beyond exploring teacher emotions during this unprecedented time, the logic model provided the framework for understanding the key components of Montessori education as implemented in distance learning, including necessary resources for students, actions taken by children in the class, and goals to be achieved.

Resources

The top resource theme that emerged in the data from social media and the NCMPS events was “broad, interrelated curriculum” (see Table 2). Spontaneous discussion also included the topics of individualized instruction and positive emotional climate. While it is important to gauge the representation of the logic-model structure within the qualitative data, the real value is in the richness of the discussion itself. The sections that follow provide contextualized responses related to each of the resources in the model.

Table 2*Prevalence of Resource-Related Themes*

| Resource-related theme as % of all coded items | % |
|--|----|
| Broad, interrelated curriculum | 14 |
| Individualized instruction | 7 |
| Positive emotional climate | 5 |
| Experiences with nature | 3 |
| Clear expectations | 2 |
| Ordered environment | 2 |
| Adaptation for atypical development | 1 |

Broad, Interrelated Curriculum. Teachers on Facebook shared resources, videos, and links for lesson ideas in Math, Language, Cultural Subjects, and Science. More than half of the files and videos shared on Facebook were Math lessons, followed by Language lessons (~30%). Teachers at NCMPS events reported working on addressing each child’s needs, with some teachers creating differentiated lesson plans and packets for each child that covered Practical Life, Sensorial, Language, Math, Cultural Subjects, and Science, as well as art and music.

Individualized Instruction. Teachers came to the Facebook group looking for resources on sharing lessons with children. Many offered instructions for creating materials at home to facilitate individualized lessons. Teachers felt comfortable with children reviewing lessons presented in the classroom but struggled with whether or how to present new lessons virtually. One teacher commented:

Unfortunately, in this new distance-learning platform, it is impossible to deliver one-on-one, individual quality lessons with no materials for the students to use at home to practice once the lesson has been demonstrated. There are not enough hours in the day when you have a class of 25 kids. We have been prerecording lessons and sending those out, but it takes a lot of prep time and videotaping, along with ensuring the child has what they need to practice at home.

Positive Emotional Climate. On Facebook, teachers shared links for yoga, meditations, journals, social stories on wearing masks, and other activities to support social-emotional development. One teacher

expressed the interest in social-emotional learning, explaining “it should be the main focus on your children’s academic journey, especially now as they are learning through distance.” Another teacher expounded, “Reason 2,457,391 why I love Montessori. The social and emotional development of the child will have the largest impact on a child’s potential; human development and academic too.” Participants in the NCMPS events also discussed the importance and the challenges to social-emotional development at that time.

Experiences With Nature. While many teachers discussed simply encouraging parents and caregivers to get children outside, others shared resources on connecting with nature. These resources included videos of beehives at one school and gardening ideas from another. Teachers also shared resources for virtual field trips. From an EC teacher:

Most [of] my morning connection videos were outdoors, and demonstrated activities or explorations they could try at home (while trying to be sensitive and accommodating to the extra challenge that all parks were closed, and many families had limited outdoor access).

Some Elementary (El) teachers scheduled recess as a part of their virtual day; they “talked about what it was like outside and encouraged/expected each child to go out at least once a day.” Similarly, teachers participating in the NCMPS events suggested that parents and caregivers take children outside as much as possible.

Clear Expectations. On Facebook, teachers focused on communicating clear expectations of online interactions. One group member said:

In the initial emails that went out for the first Zooms that went out, I wrote out a few basic expectations that really helped—to be in a quiet room, to remind the child that there will be other times for socializing (we made other times), to help them practice muting and unmuting themselves. . . . When needed, I reached out privately to parents I needed to sort other expectations that came up. Mostly it is working to tell the kids on the actual video any expectations we ask of them, like to keep themselves on mute and raise their hand in the screen to talk.

Other teachers tried to provide parents and caregivers with expectations for participation but found it was challenging. While teachers felt they could provide clear expectations, they relied on parents and caregivers

to follow through on these expectations because the children were in their homes. Teachers provided a Google Doc or email home about expectations and shared homeschooling recommendations. In the NCMPS event notes, teachers discussed providing El children with clear expectations about participation and attendance. They provided families with suggestions, such as consistent wake-up times and creating an ordered environment.

Ordered Environment. Teachers in the Facebook group considered ways to help families set up materials or shelves at home to establish routines and a learning space for the child. One teacher commented, “We took ideas from many other [teachers] and formulated what we thought would work best, while also trying to replicate the classroom. We asked the parents to provide a work shelf where the children could keep their materials.” Teachers suggested ways to set up a dedicated work space; one teacher said, “Home is going to be an extension of the classroom.”

Technology was an important component of creating the home learning environment. One teacher commented on the potential disparities in technological resources:

We tried to be cognizant of the fact that not all homes are equal in terms of technology. We have seen from the response/feedback of parents that children are using tablets, laptops, desktops, phones. I believe almost all homes have at least a cell phone—not all but most. Printers are helpful. For those families without immediate access to a printer, we have printed the weekly workbook and left it and other resources in a giving basket near our front door.

Some NCMPS event attendees provided parents and caregivers with images or videos on how to create a clear, ordered workspace in the home environment. Teachers seemed to recognize the challenges parents and caregivers faced; one participant lamented,

Ugh! We didn’t have time to do any training, and it was always a work in progress. In the few days we had to get School at Home up and running, we had to focus on preparing the digital environment. We did check with each family about their technology and supported some with loans of computers from school, and always provided tech support. But we did very little to help families know how to set up their spaces.

Adaptations for Atypical Development. The Facebook groups did not engage in any direct discussion

about adaptations for atypical development, but some participants in the NCMPS events mentioned support from social workers, reading interventionists, and other specialists. Several teachers reported no guidance or support in this area from schools and districts.

Actions

The typical actions of Montessori children outlined in the logic model were also evident in the qualitative data from the NCMPS events and the Facebook group. Of the 1,715 items coded, the largest theme that emerged under the heading of actions related to children using real-life manipulatives (see Table 3). Other actions were present in much smaller numbers within the data (i.e., choosing activities of interest, maintaining environment, expressing self artistically, moving freely in the classroom) or were practically nonexistent (i.e., collaborating with peers, resolving disagreements). Discussion of the contextualized data is provided here for each action.

Table 3
Prevalence of Action-Related Themes

| Action-related theme as % of all coded items | % |
|--|----|
| Use real-life and manipulative materials | 27 |
| Choose activities of interest | 3 |
| Express self artistically | 1 |
| Help maintain environment | 1 |
| Move freely in classroom | 1 |
| Assist and collaborate with peers | <1 |
| Resolve disagreements | <1 |

Real-Life and Manipulative Materials. Teachers on Facebook shared links to videos and to PDFs of manipulatives. They also shared lists of supplies for parents and caregivers and suggestions for lesson extensions to build on the basic curriculum while engaged in distance learning. In addition to digital recommendations, teachers in the Facebook group also shared paper packets and emailed PDFs of activities. They provided suggestions on how to make materials from pony beads, pipe cleaners, cardboard, toothpicks, popcorn kernels, embroidery looms, and muffin tins. One group member said:

We made some videos where we showed a material and then gave ideas on how to closely replicate it at home. We post these videos on Saturday before the week the lessons are presented so the children will have the material if

their parent made it. We also include a link to examples of homemade materials.

Early in the pandemic, teachers in the NCMPS events framed the challenge: “What materials would you bring to a desert island?” or “How many ways can the stamp game be used?” Some participants discussed making packets and materials themselves, while others considered loaning Montessori materials or providing instructions for parents and caregivers to make replicas of Montessori materials from items at home.

Choice. Teachers said that children had some choices throughout the day. For example, they could opt in or out of participating in activities, choose when to take breaks, and decide when to work during the day. Similar to the classroom, children could choose their work; however, in distance learning, this choice was often facilitated by choice boards, work plans, menus, bingo cards, voting, or picking a book to read. One teacher said, “We talk about our choices for the day and say every time, ‘This is school, you are in charge of your choices, you can follow me, or make your own choices. Let’s come up with ideas for the day. . . .’” Teachers looked for opportunities to provide children with choices in their connections with school and work options. One teacher said,

When we finish a segment presentation, we use the same type of wording we do after we present in the classroom. “I am done now, you can keep working on this work for as long as you want. . . . When you are finished, remember to think of what you want to do next. Will it be counting? Will it be polishing? Will you write your friend a letter? You will think and decide. Remember, only one work out at a time.”

Teachers in the NCMPS events discussed providing students with options for daily work through online classrooms. However, some teachers acknowledged the limitations of the range of possible choices to provide to children learning at home.

Artistic Self-Expression. Artistic self-expression is another topic that was not discussed much in the Facebook group, but some teachers shared resources and videos of art activities focused on specific artists or materials. Participants in the NCMPS events did not discuss specific plans for art experiences.

Maintaining the Environment. Social-media data suggested that engaging children in maintaining the environment was a challenge for teachers to support

from afar, but teachers did not discuss this topic much. Establishing an ordered environment, as discussed previously in the Resources section, received much more attention. Maintaining the environment fell to families, who faced other competing demands and stresses placed upon them during school closures. A few teachers provided videos and pictures, and some teachers held virtual meetings on the subject. During the NCMPS events, teachers described plans for maintaining the in-person environment after they returned to the classroom, including new Grace and Courtesy lessons and extra sanitizing.

Collaboration, Peer Teaching, Conflict Resolution, and Movement in the Classroom.

Interactions among peers during distance learning seemed to be focused more on helping children feel connected to one another and their teachers and on fostering a positive attitude about school, rather than on collaborative academic work. Although distance learning resulted in limited spontaneous conversation on peer teaching, collaboration, and conflict resolution on social media or in NCMPS events, some EI teachers reported holding book groups or readers theaters. One EI teacher had group meetings in Minecraft. Teachers at both EC and EI levels reported using Flipgrid and encouraging parents and caregivers to have virtual playdates. A small number of teachers mentioned missing peer learning and support, and none cited helping to resolve disagreements. Because children’s homes became the classroom, freedom of movement was not a topic of discussion.

Goals

Qualitative data did include some discussion of the goals of Montessori education, as outlined in the logic model. Table 4 shows the prevalence of each goal: the top two goals were purposeful activity and self-discipline and knowledge. The other goals were discussed less frequently

Table 4
Prevalence of Goal-Related Themes

| Goal-related theme as % of all coded items | % |
|--|---|
| Purposeful activity | 5 |
| Self-discipline and knowledge | 3 |
| Positive attitude toward school | 2 |
| Compassion for others | 2 |
| Contributing member of society | 2 |
| Confidence and initiative | 2 |
| Sustained focus | 2 |

on social media and at NCMPS events. The nature of the items related to Montessori education goals is discussed in the sections that follow.

Purposeful Activity. In the Facebook group, teachers discussed options for using purposeful activity to encourage parents and caregivers to allow children independence at home, which often meant helping with cooking and other household tasks. One teacher commented, “I am not doing online sessions nor sending work home. But I am suggesting real-life experiences (laundry, writing a letter to a friend, helping in the kitchen) for parents to focus on.” Similarly, teachers in the NCMPS events suggested families involve children in meal preparation and activities of daily life at home.

Self-Discipline. Some teachers on Facebook expressed concerns about overreliance on adults during distance learning; other teachers took issue with their peers’ language:

I see the Montessori disappearing from these conversations in terms of “parents want them to _____” and “I tell parents to have them do _____.” In our environments, children have an array of activities to choose from, independent of an adult. We need to find a way forward with following the child, or we can’t call this Montessori. It might be educational or valuable in some way, but it’s not supporting development the way we were trained to do.

Some teachers recognized that being independent and self-disciplined in this time was an essential part of stay-at-home life and that previous experience with independence at school was helpful. One teacher described the realization some parents and caregivers had in this regard:

[The children] had to have independence [because we have] a lot of working parents, and I didn’t ask for or expect any parent help. I explained as much when I was contacted by parents, some of whom were frustrated by their children’s inabilities. (It was a good chance for them to understand their children.) Choice and time and experience were explained, but at a level appropriate for each child.

However, teachers also expressed the need for parent or caregiver communication and support to help the children develop self-discipline. Many teachers reported providing families with emails, videos, or Zoom training

on how to support independence and self-discipline. One teacher commented,

Because of these developmental differences, we learned quickly that School at Home could never be a one-size-fits-all experience in terms of independence. We tried to partner with parents, to add more choices, to build in more projects, and to engage with students one-on-one more often in order to help them conceptualize how they want to use their time.

Teachers in the NCMPS events and on Facebook discussed ways to encourage self-discipline, such as setting up office hours to discuss how to encourage independence or arranging virtual classrooms so children could log in independently, with assignments posted at the same time each week. Some teachers provided a great deal of technology support, and older siblings often supported younger children in this regard.

Positive Attitude Toward School. Much of the discussion in the Facebook group about fostering a positive attitude toward school revolved around maintaining connections among students. Teachers discussed tools for engaging with children as a group to maintain community and they shared ideas for virtual group time to help children feel connected with each other (e.g., songs, games, virtual field trips, read-alouds). They also encouraged allowing children to express feelings in virtual class meetings. One teacher listed her goals to help build a positive climate: “Help kids understand that everyone is struggling. Address trauma/anxiety about illness. Normalize a wide range of experiences.” Teachers also used regular Zoom meetings to continue routines and traditions, such as birthday and graduation rituals. As one teacher noted, “I am sure my students got a sense of security seeing me and their classmates on a daily basis. The routine is important for them, especially in their crazy times.” Similarly, teachers in the NCMPS events prioritized relationships with children to encourage positive attitudes toward school through communicating with them on Zoom, planning smaller group meetings, or encouraging the use of journals to share feelings.

Teachers also recognized the importance of families’ maintaining a positive connection to school. They engaged parents and caregivers in ongoing communication through emails, Zoom happy hours, newsletters, videos, and calls. They also shared articles, memes, and videos on how to support children in

challenging times, including stories about why school is closed or why people wear masks. One teacher described the results of these efforts:

We have really seen the value of connection and support our families and our guides have experienced during this uncertain and troubling time. We may make some additional modifications; however, what we have created is a good alternative—not a preferred alternative, but a good alternative.

Compassion. While some teachers shared resources, links to videos, and articles for parent supports, teachers did not specifically discuss compassion much. In fact, limited opportunities for peer interaction reduced teachers' focus on this particular outcome.

Contributing Member of Society. Although the number of items in this area was relatively small, most of the Facebook posts with a focus on broader societal needs were related to Earth Day resources because of timing. A few teachers asked for help in how to support health-care workers. Some teachers also encouraged children to help with chores at home or assist in younger children's classrooms.

Teachers of younger children—infant/toddler communities through Children's House age—have said that having [Elementary and older] children join their Zoom circle time to read stories or to show their latest projects has been a big hit. . . . Perhaps there are ways of expanding on this idea, like having groups working on/creating a play or presentation for the younger children or to take the show on the road and do virtual visits to nursing homes.

The only mention of this topic in NCMPS events was related to an adolescent class working on passion projects and community service.

Confidence and Initiative. While this goal was not the focus of a great deal of discussion, a few teachers shared experiences with children: "My students are creating their own videos, too. . . . They want them embedded in our class website. (I'm still trying to figure the logistics of that one out. . . .)" Teachers emphasized support and independence, talked about positive choices with children, developed and suggested self-correcting lessons, and educated parents and caregivers on the connection between confidence and independence. Confidence resulting from independence was also discussed.

Sustained Focus. While the topic was not discussed as often as other goals, teachers expressed that supporting sustained focus for children, especially young children, was difficult:

I guess my biggest problem is that they don't want to sit down and do any "seat work." I've sent home a variety of options, including cards to match (less "paper" work); however, the parents/children are just having a difficult time with sitting down and doing focused work. I think they are looking for more hands-on ideas that wouldn't be included in a packet from school. So I guess I am looking for things they can do with what they have on hand. . . .

Teachers suggested using Zoom to "Zoom in and Zoom out," to briefly check in with a student and then give them space to work, similar to the dynamic in the classroom during work time:

Follow basic Montessori principles of what the child needs, provide balance, and repeat that routine over and over. All humans do well with a routine; it feels safe and right. We also try our best to balance presentations so we are focused, moving, exploring, and creating all in one Zoom.

Having analyzed the qualitative data from the NCMPS events and the social-media comments, we now turn our attention to synthesizing the results and discussing implications.

Integrating Survey and Qualitative Results

The joint display tables provided in Appendices A through D illustrate the degree of convergence between the survey results and the qualitative data. As we merged these two data sources, we saw approximately half of the elements fully converging, about one-fourth diverging only in terms of the element's prevalence, and the remaining one-fourth of the elements partially converging in other nuanced ways. No fully divergent evidence emerged. The differences we found in prevalence were not surprising considering that the survey responses were prompted according to topics of interest, and the qualitative data focused on the types of issues teachers looked to their peers to address. With so much consistency in the findings, we gain confidence in incorporating the rich, qualitative insights into the survey results.

In terms of the overall distance-learning experience, all examined elements converged fully (see Appendix A). Both data sources supported broad participation in distance learning and highlighted the unprecedented use of technology by Montessori teachers. Another converging finding was that high levels of stress, combined with low levels of school-based support, required teachers to seek assistance from one another to cope with the extraordinary challenges they faced. We now examine the merged results in more detail.

Resources

In terms of the resources necessary for effective Montessori educational environments, the qualitative and quantitative results emphasized teachers' efforts to create a positive emotional climate and provide experiences with nature (see Appendix B). Somewhat diverging results emerged when, despite the energy teachers invested in establishing a positive emotional climate, survey results indicated that teachers felt only a moderate level of success. Teachers' feelings of limited success were not evident in the NCMPS events and social-media comments. The findings about facilitating experiences with nature also diverged somewhat. Survey results suggested families excelled in this area, but only a relatively small number of nature-related comments appeared in the qualitative data. Perhaps this is an indication that teachers were not seeking support in this area because parents and caregivers were particularly successful.

Clear expectations and the resources of a broad, interrelated Montessori curriculum seemed to be the foundation of the distance-learning experience. Both qualitative and quantitative data converged, indicating that Math and Language comprised the bulk of distance learning, with some attention to creating connections with Science, Cultural Subjects, and Practical Life. Teachers strived to establish clear expectations as they facilitated students' experiences with the curriculum, but close collaboration with families was necessary. Teachers worked to set expectations for the virtual learning environment but relied on parents and caregivers to set expectations for the physical learning environment when the children were working on their own and not engaged in virtual activities with their teachers. Teachers keenly felt the limits of their power in this area but shared these concerns more in the survey than in the qualitative forums.

In both qualitative and quantitative data, two resources emerged as the greatest challenges in distance

learning: ordered environments and individualized instruction. Ordered environments, in particular, required partnerships with families, and teachers did not always feel successful in providing this support because they were limited in what they could do from a distance. Again, these distance-learning challenges were more prevalent in the prompted survey responses than in the open forums. Regarding individualized instruction, data converged to suggest that teachers at first struggled to figure out how to deliver new content when they were significantly limited in their ability to directly observe children and respond to their needs. Furthermore, families' abilities to monitor progress and support individualization varied greatly. As a result, information teachers gathered about children's development was heavily mediated by parents and caregivers. Such a scenario may have made teachers less confident in matching children with the right lesson at the right time.

Adaptations for atypical development produced varied results. On one hand, accommodations during a pandemic represented uncharted territory, and teachers were largely on their own to figure them out. On the other hand, however, teachers seemed to feel somewhat prepared to do this by virtue of their training to follow the child. Some reliance on special-education professionals and service providers, as well as some additional family supports, was evident from both the survey and qualitative data; however, the issue was more prevalent in the survey data.

Actions

Regarding the actions that children were expected to engage in while learning in a Montessori classroom, Appendix C illustrates the finding that distance learning provided opportunities for choice, real-life and manipulative materials, and artistic self-expression. Children had opportunities to exercise choice in their learning; however, these choices may not have been as varied as in the classroom, and there were no physical materials to beckon to the children from the shelves. Issues of choice were consistent between data sources but were more prevalent in the survey data. As evident in both the survey and qualitative data, teachers asked parents and caregivers for help creating physical replicas of Montessori materials and assisting students in using digital representations of Montessori manipulatives. However, families varied widely in their capacity to help teachers implement these alternatives to the classroom materials. Social-media conversations revolved mostly around creating physical replicas of Montessori materials.

Teachers believed that children's opportunities for artistic self-expression were sustained in distance learning and that families had some success in supporting children's artistic efforts. Possibly as a result, artistic expression was not discussed as prevalently as other subjects in social media or virtual NCMPS events.

Although both data sources suggested that distance learning allowed children to engage in some activities similar to those at school while learning from home, challenges emerged for activities like maintaining the environment, collaboration and peer teaching, and conflict resolution. In a conclusion supported by both survey and qualitative data, distance learning generally resulted in decreased opportunities for maintaining the environment, with teachers being sensitive to families' limited preparation and energy for supporting these efforts. Not surprisingly, the physical isolation of distance learning limited opportunities for collaboration and peer teaching and resulted in little to no need for supporting children in resolving conflicts with their peers. Teachers emphasized social interaction through shared lunch or circle time more than through academic collaboration, although some collaboration occurred at the elementary level via digital platforms. According to both data sources, neither teachers nor children participated much in conflict resolution. It is unclear if there were fewer conflicts, if the conflicts were less disruptive and therefore ignored, or if teachers lacked the resources to provide this support virtually.

The element of freedom of movement in the classroom yielded divergent results, primarily because the concept was expanded in the survey to incorporate the broader concept of independence as classroom spaces were not being used. While qualitative data showed very little discussion of freedom of movement, teachers reported that parents and caregivers did need teachers' assistance to support their children's independence.

Goals

Appendix D shows a diverging picture of the experience of teachers' attaining goals related to students' engaging in purposeful activity, having a positive attitude toward school, and demonstrating confidence and initiative. Survey data indicate teachers felt they effectively supported children in engaging in purposeful activity, but qualitative data focused less on effectiveness and more on helping teachers develop specific activities for children to do at home. In terms of fostering a positive attitude toward school, survey data suggested teachers felt positive about their effectiveness, but only in the

qualitative data did we see the degree to which fostering a positive attitude toward school was related to efforts at maintaining connections to the classroom community. Fostering a positive attitude toward school was clearly a priority and was a relatively successful area for teachers. Significant conversation emerged about fostering a feeling of connection to school and peers and supporting students in processing emotions. Further, although teachers in the survey reported feeling moderately successful at helping to develop confidence and initiative, relatively little discussion about these topics occurred in the social-media or NCMPS-event data.

Results from both data sources for the outcomes of developing compassion for others and becoming a contributing member of society were neither particularly positive nor negative. Neither topic was a major source of conversation on social media. Teachers did not appear to feel they were very successful in helping students become contributing members of society during the pandemic, but some limited evidence emerged related to making connections to broader social events and issues, like Earth Day, as well as to supporting younger students via virtual read-alouds and similar activities.

According to data from both sources, the biggest challenges in accomplishing the expected goals of Montessori educational experiences during distance learning were in students developing sustained focus and self-discipline. Because success in sustaining focus depended heavily on conditions in the home, teachers felt particularly challenged in this area, although the context for these challenges in the home was more evident in the survey's open-ended comments than in the NCMPS-event and social-media data. A key theme, which became evident through the analysis, was an ambivalence about the reliance on adults necessitated by distance learning. Tempered with compassion and empathy for families' social-emotional challenges of isolation and working and learning from home, teachers still struggled with encouraging self-discipline and independent learning among their students.

Discussion

In our results, we found substantial evidence to support the resilience and durability of the Montessori Method, even in the face of adverse conditions created by a global pandemic. Despite the challenges of adaptation, Montessori educators demonstrated a commitment to the key philosophical tenets of Montessori education, such as following the child and employing a holistic

perspective on learning and development. This durability is perhaps not surprising for a pedagogy that is already more than a century old and that has endured two world wars as well as the Spanish flu pandemic more than 100 years ago. Although a Montessori approach to academics looked very different under distance learning, educators' commitment to serving the whole child's growth and development remained front and center. Data collected in this study highlighted focused and persistent attention to the social-emotional needs of children and families during an extremely difficult and turbulent time in American life. These data also reflect the Montessori perspective on considering the child within the family. This ongoing attention to children's social-emotional needs will serve both teachers and children well when they return to the classroom, undoubtedly with many feelings to process after pandemic-related isolation and hardship that will likely result in complex responses to these stressors. We now conclude with acknowledging the limitations of the present study and the implications for the field as we consider a postpandemic educational world.

Limitations

While the varied data sources allowed for a rich understanding of the experience of distance learning, the study would have been more robust with a larger and more diverse survey sample, along with a broader range of social-media and qualitative data sources. Even so, these results provide unique insights into the experience of Montessori educators, children, and families during the distance-learning experience thrust upon them in the spring of 2020.

Implications for the Field

Although this study did not include any direct measures of student learning, our findings do suggest some considerations for Montessori educators when children return for face-to-face learning. Survey responses and qualitative data clearly indicate that distance learning placed limits on what teachers could accomplish academically, so educators should be prepared for children to return to school with significant academic needs. Our data also suggest that, for many children, distance learning may have interfered with what Montessorians refer to as "normalization": the process of developing the focus, initiative, and executive functions necessary to engage in extended, self-chosen work (Lillard & McHugh, 2019b, p. 9). Montessorians

at all levels should be prepared to support children in rediscovering these capacities upon their return to the classroom.

This study also carries some implications for the Montessori teacher workforce. Distance learning prompted Montessori teachers to embrace technology on an unprecedented scale; Montessori schools and teachers may bring some of these digital tools back to the classroom when they return for face-to-face instruction. The long-term influence of this experience on Montessori pedagogy remains to be seen and should be a focus of future research. Similarly, there may be increased attention to family engagement in the Montessori community in the coming months and years. Though parent education has long been a component of Montessori schools, Montessorians may now be interested in approaching families more as partners and collaborators than as outsiders who need to be educated. Lastly, it is clear from our data that the protracted experience of distance learning has been difficult for educators who were initially drawn to a hands-on, highly relational approach to teaching and learning. At the time of this writing, it is unclear when face-to-face instruction will resume on a national scale. The field may see widespread teacher attrition if distance learning continues without significant support to continue operating under these difficult circumstances. And, in fact, teachers will likely continue to need support to deal with the challenges they will face as they and the children they work with return to the classroom after such an extended absence from their high-functioning communities.

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Appendix A

Joint Display Table: Overall Distance Learning Experience

| Topic | Survey | Qualitative | Convergence |
|---|--|---|-------------|
| Participation | Majority of families participated in distance learning (66% EC, 78% EL) | Widespread distance learning resulted in rapid growth of national virtual convenings and social media groups to support teachers | YES |
| Searching for support | Schools provided little guidance or support for teachers on how to address distance learning [Great deal or moderate guidance on expectations (22% EC, 21% EL); Support developing strategies (27% EC, 16% EL)] | Majority of items related to sharing resources (48%); followed by administrative topics (18%); looking for resources (8%) | YES |
| Stress / Challenges of distance learning for teachers | Teachers felt only moderate (47% EC, 44% EL) success at upholding Montessori practices (4% EC, 0% EL Extremely well) | Teacher emotions well-represented in the items coded (7%); Teachers confident in Montessori but expressed frustration translating it to this format | YES |
| Technology | Split between hands-on (average 55% EC, 54% EL) and screens (38% EC, 42% EL); slightly more hands-on; Video conferencing with students (88% EC, 97% EL) and families (65% EC, 66% EL) was popular and half did read aloud livestreams (53% EC, 51% EL); More EL used LMS (42% EC, 79% EL) and some loaned technology (23% EC, 46% EL); Physical resources still popular (60% EC, 74% EL) | Technology (14%) was the tool for sustaining classroom communities but did not totally replace offline activities; Technology issues and ideas reflected in items coded (11%) | YES |

Appendix B

Joint Display Table: Resources

| Topic | Survey | Qualitative | Convergence |
|-------------------------------------|---|--|---|
| Ordered environments | Required family involvement and they needed support [Success (3% EC, 5% EL); Needed support (27% EC, 27% EL)] | Few mentions (2%) although many of those addressed supporting families | SOMEWHAT (prevalence differed) |
| Broad, interrelated curriculum | Language (27% EC, 25% EL) and math (19% EC, 27% EL) most often; followed by science & social studies (16% EC, 21% EL) and cultural subjects (14% EC, 14% EL); less time on practical life (12% EC, 8% EL) or Sensorial (10% EC, N/A EL) | Sizable mentions of curriculum (14%); Mentions related to Math (50%) and Language (30%); shared files and videos | YES |
| Individualized instruction | Mixed results from families [Success (18% EC, 32% EL); Needed support (19% EC, 18% EL)]; Half gave individualized lessons but also some by grade level and whole class; Individualization more at EL | Represented sizable number of mentions (7%) and also part of resources shared | YES |
| Positive emotional climate | One of top 4 elements for parents [Success (39% EC, 32% EL); Needed support (28% EC, 28% EL)]; Teachers only felt moderate success [Extremely well (6% EC, 7% EL), Very well (35% EC, 38% EL), Moderately well (38% EC, 38% EL), Slightly well (19% EC, 15% EL), Not at all (1% EC, 1% EL)] | Evident in 5% of items; Social-Emotional learning resources shared and discussion of this as a priority | SOMEWHAT (Importance converges; success level only clear in survey) |
| Clear expectations | One of top areas of parent struggle [Success (9% EC, 15% EL); Needed support (49% EC, 55% EL)]; Teachers could only guide parents, not enforce; Easier to accomplish in live meetings than asynchronous work | Comments often connected to ordered environment, but only 2% of mentions; Related to Zoom behavior, separating social time, designated space for learning, and attendance | SOMEWHAT (prevalence differed) |
| Experiences with nature | One of top parent successes [Success (61% EC, 45% EL); Needed support (8% EC, 1% EL)]; multiple strategies employed [Encouraged parents outside (90% EC, 85% EL), Designed outdoor activities (76% EC, 83% EL), Electronic resources (69% EC, 86% EL)] | Reflected in only 3% of comments seemed parents not viewed as needing much help, just resources; Discussed alternatives when parks were closed or when families had limited access to outdoors | SOMEWHAT (prevalence differed) |
| Adaptation for atypical development | Mixed results for parents [Success (16% EC, 13% EL); Needed support (12% EC, 21% EL)]; strategies mostly around supporting parents with resources or meetings; Also consulted SPED professionals | Not discussed much (1%); Interfacing with other professionals mentioned | SOMEWHAT (prevalence differed) |

Appendix C

Joint Display Table: Actions

| Topic | Survey | Qualitative | Convergence |
|--|--|---|--------------------------------|
| Choose activities of interest | Parents successful especially for EL [Success (27% EC, 34% EL); Needed support (8% EC, 10% EL)]; Teachers struggled to allow as much as in classroom; Often a narrower range of options; Strategies: opt out, tools like choice boards or BINGO cards, taking breaks when needed | Mentioned in 3% of items coded; discussion about choices in lesson follow ups, work choices; Often related to discussions about independence | SOMEWHAT (prevalence differed) |
| Use real-life and manipulative materials | Mixed results [Success (42% EC, 37% EL); Needed support (26% EC, 22% EL)]; Most commonly provided instructions for replicating materials to make at home; Some digital versions but little borrowing materials | Second most common code (27%); Shared videos, PDFs, lists of supplies for parents to make materials, work “packets”; Discussion of challenges | YES |
| Assist and collaborate with peers | Families struggled in supporting especially for EL [Success (3% EC, 6% EL); Needed support (14% EC, 22% EL)]; Offered more virtual social time, book groups and/or circle time; A third of EL involved group projects but fewer EC | Connecting more socially and emotionally and not academically; Only 7 (<1%) people mentioned peer collaboration | YES |
| Resolve disagreements | Not included in survey because largely viewed as irrelevant | Only one comment out of 1,715 related to this | YES |
| Express self artistically | Parents successful especially EC [Success (45% EC, 29% EL); Needed support (4% EC, 3% EL)]; Support really not needed; Similar opportunities for art as in person [Same as in person (51% EC, 56% EL), More (19% EC, 21% EL), Less (29% EC, 24% EL)] | Not much discussion (1%) but a few shared resources such as videos and activities related to specific artists or materials | SOMEWHAT (prevalence differed) |
| Move freely in classroom | Expanded to cover “independence”; Mixed results with parents [Success (12% EC, 31% EL); Needed support (38% EC, 34% EL)] | Very few mentions (1%) since classrooms not in use | SOMEWHAT (concept broadened) |
| Help maintain environment | Few said families did well but not an area of needed support [Success (13% EC, 8% EL); Needed support (9% EC, 4% EL)]; Fewer opportunities especially for EC; Not area of focus outside the classroom but some suggested chores and helping family | Challenging to encourage at a distance but little discussion (1%); Often connected to the orderliness of the environment; Hard for families with competing demands and stress; More focus on future face-to-face plans regarding grace and courtesy and sanitizing classrooms | YES |

Appendix D

Joint Display Table: Goals

| Topic | Survey | Qualitative | Convergence |
|---------------------------------|---|---|---|
| Purposeful activity | Teachers felt 2 nd most effective (Teacher Effectiveness M=3.23 EC; M=3.37 EL); Focused on helping around the house, cooking, doing “chores” | Topic in 5% of items; Making meals; Engaging in household tasks and involved in real life experiences | SOMEWHAT (evaluation differed) YES |
| Self-discipline and knowledge | Teachers felt 2 nd least effective (Teacher Effectiveness M=2.86 EC; M=2.96 EL); Required flexibility and empathy and balanced expectations for families; No one size fits all | Topic of some discussion (3%); Concern about too much reliance on adults but had to partner with parents; School experiences prepared them but parents not always supportive | SOMEWHAT (more connection to community in qual) |
| Positive attitude toward school | Parents most successful here (Teacher Effectiveness M=3.62 EC; M=3.44 EL) | Connected to positive emotional environment, but only mentioned by 2%; Closely connected to maintaining community using social tools and games, songs, read aloud; Ensuring students “see” each other and teacher; Families need to feel connected too; Tried to sustain rituals and routines | SOMEWHAT (more connection to community in qual) |
| Compassion for others | Teachers felt moderately successful (Teacher Effectiveness M=3.09 EC; M=3.16 EL) | Isolation of distance learning limited relevance (2%) | YES |
| Contributing member of society | Teachers felt moderately successful (Teacher Effectiveness M=2.96 EC; M=3.03 EL); | Not a lot of discussion (2%) but some examples of projects | YES |
| Confidence and initiative | Teachers felt moderately successful (Teacher Effectiveness M=3.09 EC; M=3.21 EL); Supported by encouraging independence and positive choices; Relied on self-correcting materials and students solving their own problems | Not a lot of discussion (2%) | SOMEWHAT (more context in survey qual) |
| Sustained focus | Most difficult for parents to support (Teacher Effectiveness M=2.73 EC; M=2.75 EL) | Difficult for teachers to monitor and encourage; Not large number of mentions (2%) | SOMEWHAT (prevalence differed) |