The effects of using virtual parent education events on Montessori toddler parents' participation, understanding and confidence

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in fulfillment of final requirements for the MAED degree

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Abstract

The purpose of this research was to study the effects of using an online platform to host parent education events, on parent participation, understanding of Montessori principles, as well as confidence in applying said principles with their children. I completed the research through a four-week parent education intervention. The participants were 11 parents at a private, urban Montessori school. I collected data through pre- and post-intervention questionnaires, attitude scales, parent feedback forms, and teacher’s observational records of parents’ questions and comments during and after the event. Through the intervention, parent knowledge and understanding of Montessori principles, parent engagement, and parent confidence in applying Montessori principles increased. Parents enjoyed the flexibility and convenience of the online format. The research confirms virtual platforms as effective tools for parent education in today’s technology-saturated world. Technology is a thing that is familiar to today’s parents and can be utilized more specifically and intentionally by schools, administrators, and educators to connect parents to student learning activities and to support their growth as parents.

Keywords: technology, Montessori, parent education, parent participation, parent confidence, Zoom, online platform, virtual learning
When families enroll their children in the toddler program of Redeemer Montessori School, most often than not, it is their child’s first experience in a school setting. Hence, between the time the child is in utero up until they are 1½ to 2 years old, their parents are their first and only teachers; the ones the children look to for guidance and direction. When the child enters the toddler classroom, their education then becomes a joint initiative between the teacher and the parents to work together to help guide the child and support their development.

One of the main reasons that there is enrollment in the toddler house is because parents must return to work or begin working for the first time. I have also observed that the majority of children in my class come from two-parent households and both parents work full-time and work long hours. A few children are dropped off in before school care, and half of the class goes to after school care, which means that I do not get to see many of the parents regularly. For those parents who can drop off in the mornings, I have limited interactions with them as they rush off to work. During pick up in the afternoons, my priority and attention must go to the children that are still under my care, which then limits interactions as well. The busyness of the parents’ schedules then creates a gap in the interaction between the teacher and the parents. It has lowered the attendance in parent education events that take place in the evenings or the weekends, which makes the joint initiative between the teacher and parents of supporting their development and educating the parent in the Montessori philosophy challenging to accomplish. Moreover, our school has been offering school-wide parent education events such as a Journey & Discovery in September, a tour of the classrooms from infant to upper elementary, followed by opportunities for parents to receive lessons from the teachers on how to use
the materials. Montessori Up Close is an opportunity for the parents to come into their child’s classroom to see what their child has been working on that takes place twice a year. Required parent observations are a chance for the children to share with their parents a dynamic picture of what life is like for them inside a Montessori classroom. It happens twice a year, which is a pre-requisite to parent-teacher conferences, also held twice a year. Our school had yet to offer in-person parent education events focused solely on the toddler age level. I believed that offering parent education events that are toddler age-specific could help bridge the gap between knowing about Montessori and living out Montessori. I also thought these events could help develop the parent-teacher relationship and forge a shared connection to the child, thus putting us all on the same page regarding the toddler’s development.

The Internet has created a paradigm shift in the way communication takes place. I have found that electronic messaging and emailing have proved efficient in communicating and staying in touch with my students’ families. I have also observed that the families respond and stay up to date with information using these electronic forms of communication. Therefore, having seen that attendance from our toddler parents has been dwindling in our in-person school-wide parent education events and I, having the desire to offer toddler age-specific parent education events, chose to utilize web-based applications such as video conferencing to afford the families the flexibility and convenience to attend by eliminating commuting to the school in hopes to increase participation.

With this research, I hope to answer the following questions: 1. What are the effects of using virtual platforms for parent education events on participation and
engagement? 2. In what ways will increased participation in virtual parent education events affect the parents’ understanding and implementation of Montessori principles at home?

Theoretical Framework

The guiding theory of this research is the social constructivist theory by Lev Vygotsky. Constructivism is a learning or meaning-making theory which states that learners use their previous experiences and background knowledge as the foundation for constructing new knowledge and a new understanding of their experiences (Ültanır, 2012). Vygotsky’s social constructivist theory falls under the umbrella of constructivism but places more importance on the social environment as a facilitator of development and learning (Schunk, 1991). Social constructivist theory stresses the interaction of interpersonal (social), cultural-historical, and individual factors as the key to human development. Interactions with persons in the environment stimulate developmental processes and foster cognitive growth (Schunk, 1991). Vygotsky was more focused on the effects of social interaction, language, and culture on learning (Woo & Reeves, 2007).

Vygotsky believed that dialogue plays an important part in learning. “He argued that all cognitive functions originate in social interactions and that learning is not simply the assimilation and accommodation of new knowledge by learners; it is the process by which learners are integrated into a knowledge community” (Woo & Reeves, 2007, p. 18). Vygotsky was not only interested in the intrapersonal speech of learning concepts but also on the role of the learner and their peers as they interacted, questioned, explained, and negotiated meaning (Woo & Reeves, 2007). Learning takes place through
meaningful “conversation with other people who have similar or different perspectives based on their own life experiences” (Woo & Reeves, 2007, p. 18).

Given that humans learn through social interaction, in these modern times, technology has played an essential role in facilitating social interaction and has also modified and enhanced the way we perceive and engage in social interaction (Woo & Reeves, 2007). With the evolution of the Internet and the convenience it has afforded us in communicating, there has been a higher frequency of exposure in opportunities for interacting now more than ever (Woo & Reeves, 2007). Email is a required mode of communication at our school. Based on that fact alone, the majority, if not all, the families in the toddler class have access to a computer, laptop, tablet, or smartphone. Through the social constructivist lens, I created parent education workshops/forums through the use of web-based virtual platforms to facilitate socially interactive learning.

**Literature Review**

The goal of this action research project was to study the effectiveness of using virtual forms of parent education to increase attendance and participation in parent education events. This section reviews the studies done in the areas of parent education in Montessori schools as well as the use and role of technology in parent education. I used the following headings to organize the Literature Review: the importance of Montessori parent education, modes of parent education programs in use: in-person parent education and virtual parent education, and the reasons for using virtual parent education.

**The Importance of Montessori Parent Education**

One of the many benefits of parent education programs is the improvement in outcomes of student development (Bisceglia, 2014; Haakmat, 2015; Lau & Yau, 2015).
Bisceglia (2014) studied families in a Montessori infant-toddler environment and ways to make more connections from the school to the home environment and allow for more parent education opportunities. Based on the research conducted, Bisceglia (2014) found that the children were able to master tasks at a faster rate if there were consistent expectations at home and school. Haakmat (2015) stated that through various parent education events held at school, the parents become a direct support in their children's development and learning. Furthermore, a parent education program in Hong Kong and greater China taught parents how to "follow the child," which gradually removes obstacles to children's natural development (Lau & Yau, 2015).

Parent education programs increase parents' knowledge of school practices (Haakmat, 2015; Irving, 2017). Haakmat (2015) emphasized asking the parents to partner with the school to understand the Montessori philosophy and educate themselves through attending parent education events. Through a study conducted on Montessori parent education, Irving (2017) found that more education is needed for adults, especially when one considers the school's view versus the parental perspective of extrinsic motivation. Montessori education concentrates on the child's intrinsic motivation to learn, and states that sparking the child’s interest causes the child to seek information. The child is then attracted to carefully designed manipulative materials that foster independence as they learn (Irving, 2017). On the other hand, extrinsic motivation, such as rewarding children with stickers, candy, and prizes, can undermine a child's intrinsic motivation, leaving the child motivated to achieve something only if there is a bigger and better prize (Irving, 2017). Comments from the researcher’s students saying that their parents gave prizes or money if they completed their work, did well at school, or did well on a test, led Irving
(2017) to wonder how much parents knew about Montessori philosophy and whether they welcomed it into their homes.

Parent education programs actively involve parents in students' learning (Hlavaty, 2015; Irving, 2017; Haakmat, 2015). The parents who participated in Hlavaty’s (2015) study on promoting parent involvement generally desired to infuse the Montessori philosophy into the home. Parents also expressed the desire for increased opportunities for involvement both in the classroom and at home (Hlavaty, 2015). Parent education events actively engage parents in the curriculum and offer them suggestions for best partnering with teachers in their child's learning progress (Haakmat, 2015). In addition, it is beneficial to create fun events with relevant material that parents can use at home with their children as parents began to let their children take on more responsibility to contribute to the family. Students build confidence and increase their skills by helping prepare snacks, dinner, cleaning up, and allowing their children to practice practical life skills by pouring their drinks (Irving, 2017). In summation, parents that are given resources to learn about Montessori will know how to properly support the philosophy in the home environment (Biseglia, 2014).

Modes of Parent Education in use

In-person parent education. Schools have widely relied on using in-person parent education events. Through a survey of parent education practices in Montessori schools, Chattin-McNichols (2016) found that the majority of the schools that participated offered parent education nights and optional observations of the classroom two to three times a year while one school did a required observation two to three times a year.
Haakmat (2015) has utilized a variety of in-person parent events such as a back-to-school night held the night before the first day of school. Parents were given strategies in reinforcing Montessori principles at home and are allowed to explore the materials. Potluck dinners provide the parents with a chance to watch the teacher demonstrate the use of the materials and leave with suggestions for ways to foster their child's independence at home but not without enjoying a delicious meal and conversations with fellow parents and the teachers. Curriculum overview meetings held each year in the fall help parents understand the progression of their child's skills developed in light of the curriculum content of a focus area such as math. Parent conferences held twice a year are more individualized and tailored to inform each family on their child's progress and how to support it at home. Journey meetings that take place in the spring notify the parents about major transitions between programs and how to help their child through the transition. "An introduction to Montessori" workshop is an overview of the Montessori philosophy along with practicing directly with the materials to help the parents understand Montessori before their children start school in the fall (Haakmat, 2015).

Irving (2017) invited parents of children in grades 1-3 to attend a parent education evening, which included a PowerPoint presentation of the Montessori philosophy and a slideshow of pictures of the children working. The teacher offered two separate work choice observation events wherein the parents would come into the classroom during their child's work hours to observe the class as a whole or one student. The parent was free to ask the students what they were working on and what they were learning while the teacher went about the day giving lessons. In-person events posed its own challenges as according to Irving (2017), "A pattern developed of having a large sample of participants
who wanted to attend or participate, a smaller sample that actually did, and an even
smaller sample that would complete and return my data collection tools" (p.29).

In the program offered by Lau and Yau (2015), it required parents of infants and
toddlers to attend at least eight hours of parent education classes before enrolling their
children in the school which covered topics such as the Montessori philosophy, sensitive
periods, normalization, as well as the child's social, emotional, physical and language
development.

**Virtual parent education.** According to Chattin-McNichols (2016), eight out of
nine schools that participated in a survey of parent education practices in Montessori
schools sent emails more than once a month, and suggested further research regarding the
content of the emails. Olmstead (2013) found that when asked about their preferred
method of communication, teachers indicated that they prefer email and social
networking but in actuality, communicated with the parents through email or in person.
Four out of five schools used Web-based programs, and Chattin-McNichols (2016)
suggested further research to see if the schools were using existing online content or
creating their original content.

Many teachers created classroom websites to keep parents informed in what was
happening in class through regularly updating the site, uploading photos, and
communicating with them in the comments section (Aleissa, 2016). Olmstead (2013)
found that most of the teachers updated their websites one to two times a month.

Other teachers prefer to use free online collaboration and communication
applications (Aleissa, 2016). Kurnava and Selhorn (2018) conducted a study on the effect
of Seesaw technology on parent engagement at private Montessori schools. Seesaw, a
digital communication platform where teachers can post and give valuable information, allows parents to conveniently access it through an app on their phone or computer. Through a six-week long study or parent education intervention, they found Seesaw to be a useful tool for educating parents in today's digital world.

Irving (2017) used a class blog with a section on Montessori philosophy, and ways families could incorporate it into the home along with a feature on Montessori materials. Through the study, Irving (2017) found that the class blog seemed to be the best way to reach a large number of parents, as they could access it at their leisure.

**Reasons for Using Virtual Forms of Parent Education**

There has been increased advancement in technology and electronic communication (Aleissa, 2016; Kurnava & Selhorn, 2018; Li & Irby, 2008). People have spent time using technology, whether it be texting, emailing, or using apps on smartphones, technology has come to dominate the globe (Woo & Reeves, 2007). It is becoming an integral part of people's lives. Mobile devices and web-based programs such as blogs, apps, and social media have created ways for families and teachers to communicate and collaborate (Aleissa, 2016). Kurnava and Selhorn (2018) pointed out that technology is something that is familiar to today's parents and can be utilized more specifically and intentionally by schools to connect parents to student learning activities, to their community, and to encourage their growth as parents.

Virtual platforms afford flexibility and convenience for parents with work or time constraints (Aleissa, 2016; Kurnava & Selhorn, 2018; Hlavaty, 2015; Li & Irby, 2008). Strenuous work schedules or lack of transportation may limit opportunities to attend in-person parent education events (Aleissa, 2016). The findings from a qualitative study of
improving parent involvement indicated single parents or dual-earner families faced more significant challenges in attending school events or volunteering, resulting from unpredictable schedules or rotating shifts (Baker, 2001). This study also found that having younger children at home or familial responsibilities hinder participation as well. Similarly, Irving (2017) found that parent participation in parent education events in person was a struggle. Many parents wanted to participate; however, due to scheduling conflicts, busyness, or not having enough time, some were unable to do so (Irving, 2017; Kurnava & Selhorn, 2018). While teachers commonly recognize the benefits of parent participation in schools, many are unable to effectively reach out to families because they are unable to take time away from work to participate in school functions or activities (Hlavaty, 2015; Olmstead, 2013). Furthermore, the study also found that due to the majority of families having two working parents, the emphasis on opportunities to remain connected was proposed through technology by offering parents the chance to see and experience what the children do each day at school through photographs and videos (Hlavaty, 2015). Through the use of virtual platforms, parents can gain access to information 24 hours a day, seven days a week (Li & Irby, 2008).

**Conclusion**

The review of the literature identified the parent education programs that are being used in schools and particularly in Montessori schools. Research indicated it is advisable to develop a way for parents to receive parent education without physically attending an event. However, I did not find any study or program that utilized live virtual forms of parent education, which offer real-time social interaction between the teacher and the parents. The social constructivist theory stresses that dialogue plays an integral part in
learning (Woo & Reeves, 2007). This action research study addressed real-time virtual parent education.

**Methodology**

Through the use of the action research method, I studied the effectiveness of using an online platform to educate parents on the Montessori philosophy.

The population for the study comprised of the parents of toddlers (18 months-3 years) enrolled in a Montessori school in Texas. A total of 16 parents actively consented to participate in the study yet 11 parents actually participated in the study. One set of parents (male and female) opted into the study, and 10 parents had their toddlers as their first child enrolled in the toddler program.

I started by emailing the parents an active consent form and pre-questionnaire (Appendix A) in digital form by using Google Forms (a web-based app used to create forms for data collection purposes). As soon as the parents checked the box to participate and include their data in the study, the pre-questionnaire and attitude scale would come up for them to answer, which I used to gather the baseline data. I gave the parents a week to respond. Two days before the deadline, I reminded the parents through email to respond. I used the data gathered from the pre-questionnaire to plan for and schedule the parent education sessions.

I wanted to make the parent education event interactive, so I opted for using Zoom (an online platform that provides remote video conferencing services that are accessible on a computer or a mobile device). I determined the topics to cover for the parents to select from, and I added a fourth option for the parents to write any topic they would like to learn about more. I decided to offer four online sessions, each addressing
the following topics, respectively: Montessori 101 (a basic overview of the Montessori method), Positive Discipline, Montessori at Home, and Toileting the Montessori Way. I chose these specific topics because, based on my experience, the most frequently asked questions from the parents usually fall under one of these topics. The data collected from the pre-questionnaire informed my decision to schedule each topic in this order. None of the participants wrote a topic they wanted to learn under the fourth option, so I decided to start with a presentation of an overview of the Montessori Philosophy. 100% of the participants chose Positive Discipline, 64.7% chose Montessori at Home, and 58.8% chose Montessori Toileting. Each online session was offered each week over four weeks. Data gathered from the pre-questionnaire indicated that the majority of the participants were available on Saturdays between the hours of 5:00-7:00 pm and 6:00-8:00 pm. I decided to schedule all the sessions on Saturday from 6:00-7:00 pm (CST).

After collating the data from the pre-questionnaire, I sent out a digital sign-up sheet using Signup Genius (a free online signup service to organize group events) for the parents to RSVP on the dates and topics they were interested in attending to gauge potential attendance. Two days before the event, I sent out the invitation and instructions on joining the online session. Ten minutes before the meeting began, I sent out a reminder through Bloomz, a communication app for teachers and schools to safely communicate and coordinate with parents, which was a mode of communication that has been already in place at the start of the school year.

Based on the parents’ responses in the pre-questionnaire, the majority of the participants were mostly confident in navigating the Zoom website or app, so I opted not to give a separate lesson on using the site and app. I emailed them the instructions and
invitation to join the session, which Zoom automatically generates once I schedule a
meeting. Within the invitation, I opted not to require a password when joining the
conference to eliminate an extra step to accessing the video meeting.

For the live sessions, I adjusted the settings to record the meeting within the cloud
automatically. I prepared and expounded a PowerPoint presentation in mostly bullet form
with pictures and illustrations included for the topic we discussed that week. I used the
share screen feature in Zoom so that the parents could also see the presentation. I opened
the virtual meeting room at 6:00 pm and gave the participants a five-minute grace period
to log on. I promptly started the session at 6:05 pm. I opted to mute all the participants’
microphones before beginning the meeting. The parents were free to turn on or off their
video feed. While transitioning between subtopics, I would pause and ask the parents if
they had any questions or comments. At the end of the presentation, I asked if there were
any questions, and I assigned the homework of applying what they learned throughout the
week. I reminded them that if any questions should come up throughout the week, they
should feel free to contact me. Zoom gives you the option as the host to leave the meeting
or end the meeting for all. I opted to end the meeting for all.

Immediately after the session ended, I emailed the link for the parents to fill out a
feedback form (Appendix B). The feedback form collected data specific to each session
(e.g., what the participants learned from attending, what they had hoped to learn, etc.) and
went out after each session ended, a total of four times. As requested by the parents who
were not able to attend, I shared the link with all the parents via Bloomz to view the
recording along with the link for the feedback form.
One or two days after the scheduled live session, I watched the recording to inform my observational records (Appendix C). I noted the questions and comments the parents asked, paid more attention to their facial expressions and gestures, and also took notes on what I could improve on the technical aspect of the video platform (i.e., any technical difficulties to address in the next meeting).

At the conclusion of all four sessions, I sent out the post-questionnaire and attitude scale (Appendix D) to all the participants in order to compare it to the data gathered from the pre-questionnaire and attitude scale sent out prior to the intervention.

**Analysis of Data**

The purpose of the study was to research if online parent education events using online meetings could increase parents’ participation and, in turn, increase their understanding of Montessori principles. The research design used quantitative and qualitative data in the forms of multiple-choice responses, attitude scales, short answer responses, teacher’s observational records, and interviews and correspondence with the parents collected over the course of a six-week parent education intervention.

The subjects that opted to participate in this study and attended the parent education events were eleven parents with children enrolled in the toddler program (ages 18-36 months) in a private, urban Montessori school in Dallas, Texas. Based on the data collected from the pre-intervention questionnaire, 64% wanted to learn more about applying Montessori at home, 64% also wanted to learn more about Montessori toilet learning, and 100% wanted to learn more about positive discipline. Since I would present the intervention purely online, I collected data on how confident they felt with their
technology skills. Out of 11 parents, 82% felt very confident in their abilities using a computer or laptop while 18% felt somewhat confident as shown in Figure 1.

Figure 1. Parents’ level of confidence in their ability to use a computer or laptop.

55% felt very confident in their abilities in using web-based sites such as Zoom for video conferencing while the other 45% felt somewhat confident as presented in Figure 2.

Figure 2. Parents’ level of confidence in their ability to navigate web-based sites such as Zoom.
73% felt very confident in their skills in using applications within a mobile device while the additional 27% felt somewhat confident as displayed in Figure 3.

![Figure 3](image_url)

*Figure 3.* Parents’ confidence level in their skills in using a mobile device.

45.5% felt very confident in their abilities in using mobile apps for video conferencing such as Zoom, 45.5% felt somewhat confident, while 9.1% felt they were not at all confident as shown in Figure 4.
Figure 4. Parents’ confidence level in their skills in using mobile apps for video conferencing such as Zoom.

It is important to note that I opted to not give a tutorial in logging onto the online parent education event. Based on the data collected from the feedback forms after each session, all of the parents liked the online format. None of the parents had any difficulty joining or logging into the online workshop.

Parents’ Attendance in the Live and Recorded Events

Based on the data collected from the pre-intervention questionnaire, 91% of participants were interested in attending online parent education events. 73% responded that Saturday was the best day for them to attend, and 55% responded that the best window of time for them to attend is between the hours of 4:00 pm to 6:00 pm. Initially, the research was to only present live online parent education events. In consideration of the 27% of participants who were not able to attend the live event at the scheduled day and time, I opted to make the recorded event available to the class.

Based on the data from the feedback forms, I got the most attendance in a live session for the Positive Discipline session. This was also the top subject that the parents
wanted to learn about according to the pre-questionnaire. After offering the link to the recorded event, fifteen more participants in total were able to view the content of the parent education events during a time that was convenient for them (see Figure 5).

![Parent Education Attendee Chart]

**Figure 5.** Parents’ attendance in the different topics for parent education.

**Reasons why parents could not attend the live online event**

Parents received a feedback form after each live event, even if they did not attend. I asked the parents to state the reasons why they were not able to attend. The options I offered in the feedback form were as follows: prior commitments made, family responsibilities, work schedule conflict, irrelevant topic. The parents could also state other reasons as to why they were not able to attend. The majority of the responses in all four sessions state that the reason they were not able to attend was due to prior commitments made. Another reason for not attending was due to family responsibilities.
One parent RSVP’d to participate in the Montessori 101 session but was not able to and chose family responsibilities as the reason because their baby got sick on that day. Nine out of the twelve respondents went back to watch the recorded events of their choice. None of the respondents stated that their work schedule or the topic being irrelevant as reasons for not attending the live event.

**Reasons why the participants’ liked the online format**

One hundred percent of the respondents stated that they liked the online format. Figure 6 shows the reasons they liked it. I asked the respondents to write about why they liked the online format. In the graph, I categorized their responses under the following reasons (see Figure 6). The top reason why parents liked the online format was because of its convenience. This reason was true for parents who attended the live session and parents who watched the recording. Two parents stated that they liked the convenience of joining from their phone. Six parents mentioned that they liked the convenience of joining from home. Three parents liked the convenience of joining while being away from home. Parent #4, who watched the recorded session, stated, "I liked it because of the convenience. I literally listened to it while I was nursing my 6-month-old. Although I enjoyed being able to watch at my convenience I do wish I could have been available to ask questions" (Positive Discipline Session Feedback Form, Feb. 4, 2020). It is important to note that three parents who watched the recording liked that they can re-watch the recording. Parent #5 wrote, "I was able to pause and replay at points I felt were most relevant and interesting to raising my child specifically. It was all so informative, but there were key points I wanted to remember for my child" (Montessori at Home Session Feedback Form, Feb. 21, 2020).
Three parents liked the visually informative aspect of the sessions. Parent #10, who attended the live meeting for Montessori Toileting, wrote, "I enjoyed seeing pictures of examples of what other parents used to prepare their bathroom for this process." Parent #9 similarly stated, "I loved the pictures and examples of toilet learning space. It gave us a great visual on what to create." (Montessori Toilet Learning Session Feedback Form, Feb. 19, 2020)

**Figure 6.** Reasons parents liked the online format.

**Learning outcomes from attending the online events**

Table 1 shows what the parents said they took away from attending the online sessions. They wrote their answers in a feedback form they received after attending. The responses shaded in blue are from parents who watched the recorded session. I recorded the parents' responses verbatim, and I categorized their answers based on the following

Table 1

**Learning Outcomes from Attending the Online Events**

<table>
<thead>
<tr>
<th>Participants</th>
<th>New Understanding of Montessori Philosophy</th>
<th>New Parenting Strategies</th>
<th>Preparing the Home Environment</th>
<th>How to Encourage Toilet Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent #1</td>
<td>I learned more about Maria Montessori. I didn’t know she was nominated for the Nobel prize and that she introduced her method to India. I learned the value in being more of an observer as a parent.</td>
<td>From the positive discipline webinar I liked the clear examples on how I should talk to my child to give her choices and get her involved in problem solving. I also learned the value of not ignoring tantrums.</td>
<td>I learned that spaces and the placement of items should minimize work and encourage toddlers to be independent. I will also make note of when my toddler asks for help and make the items she needs more accessible to her.</td>
<td></td>
</tr>
<tr>
<td>Parent #3</td>
<td>Sensitive learning periods was very insightful.</td>
<td>I learned how much more successful my daughter good be with positive influence versus negative discipline.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent #4</td>
<td>I learned about sensitive periods in a toddlers development, the importance of observation and how important it is to have a prepared environment!</td>
<td>I learned to give the child limited choices so they feel they have some control, to set safe limits and then kindly and firmly follow through, and treat your child with respect as you would an adult.</td>
<td>I learned to keep things at toddler level, make spaces yes spaces and to set up the environment to allow the child to safely and successfully navigate and learn and play.</td>
<td></td>
</tr>
<tr>
<td>Parent #5</td>
<td>It was really enlightening and relieving to see that the onus to get a task done does not lie solely with the parent; children must be encouraged to cooperate!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent #6</td>
<td>I learned a lot of great details about the history of Marie Montessori, and the different stages that toddlers go through.</td>
<td>1) you can use to many words when talking to toddlers 2) no shaming the child 3) managing expectations with toddler. Being prepared for when they follow through or not follow through.</td>
<td>1) setting up the toileting area and making it toddler friendly 2) not to use praise or stickers or rewards 3) using proper language and no baby talk. 4) the use of training pants and the important not to switch between diapers and training panties.</td>
<td></td>
</tr>
<tr>
<td>Parent #7</td>
<td>I learned more of Maria Montessori’s background. I understand more of the teacher, student, environment method, how it works hand in hand.</td>
<td>I learned how to defuse a situation when a child is not ready to leave, I can implement a timer rule. I also learned that a daily routine and a checklist with pictures will help prevent chaos when transitioning to another activity or when preparing to go to bed.</td>
<td>I learned that being patient and keeping the same routine helps out a lot. I also learned what is needed to prepare your bathroom for this process.</td>
<td></td>
</tr>
<tr>
<td>Parent #8</td>
<td>I learned more about the life of Maria Montessori and how unique her education approach was in her time. I also realized</td>
<td>I learned so many new techniques to help with creating good habits and routines with my son. I also understand how</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
how the Montessori education concepts apply to toddlers and their cognitive development. I hadn't realized how much this philosophy respects and supports each individual child's development and how I can encourage this as a parent.

critical respect is in positive discipling

Parent #9
I learned about sensitive periods, the importance of classroom preparation and the importance of observation
I learned that it takes a lot of patience to coach my kid and a bit of creativity
It is important to create a yes environment to help the kid feel part of the home's activities and be independent and safe
I learned about how to help my son to have a consistent routine at home while he is potty learning, help him to learn successfully. Prepare the environment

Parent #10
Learn about the difference between traditional and Montessori education. How to handle sensitive period of children
Giving solutions to toddlers problems by having checklist. Keeping daily routine Setting the limits to learn them to become respectful
Encouraging the children to take part in daily life. Showing them how they be responsible for their things

Parent #11
A get to start, great and concrete ideas, how to set the space

Frequency of interactions

During the live online session, I gave the parents the freedom to interact with me, interact with the other parents, ask questions, make comments, and share their thoughts. I recorded the frequency of these types of interactions. There were no interactions between parents in any of the sessions. The results are presented in Figure 7.
Only one parent asked a question in each live session. Parent #9 asked a question in the Montessori 101 session. Parent #10 asked a question in the Positive Discipline session and two questions in the Montessori at Home session. Parent #11 asked a question in the Montessori Toileting session. There were no observed interactions between parents in all four live sessions. The last column in the graph above represents the number of questions or comments I received throughout the week after each online course, whether it was communicated verbally or through writing and are related to the topic.

After the Montessori 101 session, Parent #1 asked via Bloomz if I could share a recording of the webinar. Parent #5 and Parent #3 also asked via Bloomz if I could share the PowerPoint presentation. Parent #10 messaged me via Bloomz and asked for the transition songs we use. Parent #9 attended the live session and said she enjoyed the PowerPoint and learned a lot of new things. Parent #1 watched the recording of
Montessori 101 and messaged me via Bloomz, saying her "biggest take away is that she should practice being more of an observer." Parent #8 verbally told me she "liked how convenient the online format was to just stay at home, go upstairs, lock herself in a room and attend in her sweatpants."

After the Positive Discipline session, Parent #11 messaged me via Bloomz and thanked me "for the amazing talk on positive parenting," and said, "it was really helpful." She said, "it shed a lot of light and felt that all parents need to know this." She asked if I could be a speaker for a mommy and me group that she attends with her infant. Parent #5 told me via Bloomz that she was thankful for the webinar and took a lot of notes. She said that "their morning routine is a lot smoother and she is more mindful now of not interrupting her child in moments of concentration."

After the Montessori at Home session, Parent #10 shared via Bloomz that her child "likes to help out in the kitchen especially when making roti."

After the Montessori Toileting session, Parent #6 expressed a desire to start her child in underwear in April. Parent #11 would like to start her child in underwear at the end of April, and Parent #7 would like to start his child in underwear in a couple of weeks as he is in the process of preparing her toileting area.

Pre and post-intervention results

Before starting the intervention, the parents answered a pre-questionnaire, which measured their knowledge and understanding of the Montessori philosophy and their level of confidence in their knowledge and implementing the Montessori philosophy at home. I gave the same questions to the parents to answer after the intervention. The results are as follows.
Figure 8 illustrates how, after attending the parent education sessions, ten more parents understood what it means to follow the child. I mainly discussed this concept in the Montessori 101 session.

*Figure 8. Parents’ responses to “I understand what it means to follow the child.”*

Figure 9 shows an increase of six more parents who had a better understanding of sensitive periods and a decrease of two parents had only somewhat of an understanding after the intervention.
**Figure 9.** Parents’ responses to “I understand what sensitive periods are.”

Figure 10 illustrates an increase of nine more parents who had an understanding of the difference between toilet learning and toilet training after the intervention.

**Figure 10.** Parents’ responses to “I understand the difference between toilet learning and toilet training.”
Figure 11 shows an increase in confidence among six more parents in their understanding of the Montessori philosophy. At no point did anyone feel no confidence about their understanding of the Montessori philosophy.

*Figure 11. Parents’ responses to “I am confident in my understanding of the Montessori philosophy.”*

Figure 12 illustrates an increase of six more parents who gained confidence in their understanding of their child’s daily school routine concerning the Montessori philosophy.
Figure 12. Parents’ responses to “I am confident in my understanding of how my child’s daily school routine relates to the Montessori philosophy.”

Figure 13 shows an increase of five more parents who became very confident in implementing Montessori in the home after the intervention.

Figure 13. Parents’ responses to “I am confident in implementing the Montessori philosophy at home.”
Figure 14 illustrates an increase of four more parents who felt very confident in applying positive discipline strategies. The parent who was not confident at all before the intervention became somewhat confident. At the same time, the other parent who also stated they were not confident became very confident after the intervention.

Figure 14. Parents’ responses to “I am confident in using positive discipline strategies with my child.”

Figure 15 shows an increase of four more parents who felt very confident in starting the toileting routine at home. In contrast, the parent who was not at all confident at the beginning had become somewhat confident after the intervention and had expressed to me that she would like to start her child in underwear in April.
Conclusions

Based on the review of the literature and the data collected through this research, using Zoom for online parent education had a significantly positive effect on the parents' participation. The study increased parents’ understanding of Montessori principles, which supports previous research that parent education programs improve parents' knowledge of school practices (e.g., Haakmat, 2015; Irving, 2017). This research showed an increase in the parents' confidence in implementing selected principles at home with their children. This research also supports the conclusion drawn by other researchers that virtual platforms afford flexibility and convenience for parents with work or time constraints (Aleissa, 2016; Kurnava & Selhorn, 2018; Hlavaty, 2015; Li & Irby, 2008). Convenience was the leading participant response regarding why they liked the online format. Prior to the start of the intervention, there was no need to give a tutorial on navigating Zoom which supports the conclusion drawn by other researchers that people have spent enough

Figure 15. Parents’ responses to “I am confident in integrating the toileting routine at home.”

Action Plan
time using technology, whether it be texting, emailing, or using apps on smartphones, and are familiar with navigating technology (Woo & Reeves, 2007).

Upon collecting favorable results from this study, I plan to keep the recorded sessions accessible to the current families and future families that join the class. I also plan to create more online courses that explore other topics based on the feedback and questions I received from the parents from this study.

**Recommendations**

I conducted this study in four weeks and presented each online session every week. Upon replicating this study, the researcher may want to consider spreading out the sessions either monthly, quarterly, or every semester. In between each session, the researcher could continue to send snippets of videos, photos, or articles relating to the topic presented. In so doing, specific topics that are related to but were not covered during the online session could be addressed. I offered all of the live sessions on the same day and time (Saturdays, 6:00-7:00 pm), a decision made based on the majority of responses from the pre-questionnaire. The researcher may consider scheduling the sessions on different days and times to give other parents a chance to attend the live meeting. I offered the recorded sessions to the families via a link they click on to view the video. It was towards the end of my research that I discovered it is possible to keep track of the parents who watched the recording by changing the setting in my Zoom account to have participants log in before they view the video. I would then receive an email notifying me that "Parent A" has registered to view the recording. I found this setting useful in directly reaching out to specific parents who watched the recording in case they had any questions or issues they would like to discuss with me. It was also helpful in
keeping track of parents who did not attend the live session nor have viewed the recording and directly reaching out to them. It would be useful to collect data on which device parents used to participate in the event, whether it be a mobile device, personal computer, laptop, tablet, etc. After deciding to make the recording accessible to families, I would have wanted to include the open-ended question asking why the parents chose to attend the live session, knowing that a recording would be available.

I formatted each online session to be one hour long. The amount of information I included in the presentations did not leave much time for discussions at the end. The researcher may try to lengthen the session to an hour and a half to leave at least fifteen to thirty minutes for discussion or keep the one-hour format but shorten the presentation to thirty to forty-five minutes and leave fifteen to thirty minutes for discussion.

The researcher can break down broad topics such as positive discipline and Montessori at home into much smaller, more digestible pieces for parents. Other topics can be explored based on the questions and feedback gathered from the parents.

Potential for Future Research Studies

This study poses many other questions for potential research. Will parents become interested in attending in-person events after attending online events and vice versa? How does this research translate to other age levels such as Early Childhood (3-6 years old), Lower Elementary (7-9 years old), Upper Elementary (10-12 years old)? How do online parent education events affect non-English speaking parents, parents that speak English as a second language or parents with limited to no internet access? What are the effects of online parent education on children's behavior or work habits in the classroom? Further research can compare the impact on first-time parents to second- and third-time parents.
A Call to Action

I cannot express how timely this research had become when the COVID-19 global pandemic forced us to practice social distancing. In turn, schools had to shut down in-person instruction and transitioned to online distance learning. For some educators that teach high school and college levels, this change called for a minor adjustment in the medium of instruction they used as technology was already fairly widespread. But for others, this transition was something that caught many unprepared. I recommend that educators seek out continuing education or professional development in utilizing online platforms to disseminate information to students and their families. Administrators should accommodate professional development and mentorship for their staff to confidently and effectively use online learning platforms. As First Aid and preventative health practices are considered compliance training for educators, the use of technology should be a part of mandatory training considering the direction we are heading as a global community. Based on the data collected, parents are well equipped and well versed in using web-based instructional platforms either through computers or mobile devices. I recommend that we meet them where and when they are able to receive information in order to meet the needs of their child and the needs of the family. The virus may keep us apart physically, but the gift of technology can keep us connected and closer together now more than ever.
References


Pre-Questionnaire

I am interested in attending online parent Montessori education events related to the toddler age group.

- Yes
- No

Active Consent Form
Dear Parents,

As you may know, I am a St. Catherine University student pursuing a Master of Education degree. An important part of my program is the Action Research project.

As the toddler teacher of students at Redeemer Montessori School, I have chosen to learn about the use of web-based programs to host parent education events because of the rise of technology and its convenience in connecting people. I am working with a faculty member at St. Catherine University and an advisor to complete this particular project.

I will be writing about the results that I get from this research, however, none of the writing that I do will include the name of this school, the names of any staff, administration, parents, or students, or any references that would make it possible to identify outcomes connected to a particular student. Only Dr. Olivia Christensen (my instructor), Ms. Jennifer Johnson (my project advisor), and I will have access to the identifiable data for this study; We will keep it confidential.

When I am done, my work will be electronically available online at the St. Kate's library in a system called SOPHIA, which holds published reports written by faculty and graduate students at St. Catherine University. The goal of sharing my final research study report is to help other teachers who are also trying to improve the effectiveness of their teaching.

The benefits of participating in this study include an increase in knowledge and understanding of the Montessori philosophy as it relates to your child, concrete ways to implement Montessori at home, as well as an opportunity to connect with your child’s teacher and other parents. There are no foreseeable risks in participating in this study.

Procedures:
If you decide to participate, you will be asked to answer a questionnaire and attitude scale before and after the study, then you will log in and attend four virtual parent education events. After each event, you will be asked to answer a feedback form. This study will take approximately four weeks. Each event will be one hour and will take place on a weekly basis. Participation in all four sessions is not required. You may choose to attend all or you may choose which sessions you would like to attend.

This study is voluntary. If you decide you do want to be a participant and/or have your data (feedback, engagement, knowledge of Montessori) included in my study, you need to check the appropriate box(es), sign this form, and return it by January 13, 2020. If at any time you decide you do not want to continue participation and/or allow your data to be included in the study, you can notify me and I will remove included data to the best of my ability.

If you decide you do not want to participate and/or have your data included in my study, you do not need to do anything. There is no penalty for not participating or having your data involved in the study.

If you have any questions, please feel free to contact me thru Bloomz or you can email me at katier@redeemermontessori.org. You may ask questions now, or if you have any additional questions later, you can ask me or my advisor Dr. Olivia Christensen, otchristensen@stkate.edu who will be happy to answer them. If you have other questions or concerns regarding the study and
would like to talk to someone other than the researcher(s), you may also contact Dr. John Schmitt, Chair of the St. Catherine University Institutional Review Board, at (651) 690-7739.

You may keep a copy of this form for your records.
Opt-In

- By checking this box, I am consenting to participate and have my data included in this study.
- By checking this box, I am consenting to participate but not have my data included in this study.

Please sign electronically by typing in your name *

Short answer text

Date signed *

Month, day, year

After section 2  Go to section 3

Section 3 of 4

Section title (optional)

Completion of these questions is voluntary and confidential. I encourage you to be as honest and open as possible. There are no wrong or right answers. I appreciate your time in helping me research online parent education events.
Which topic(s) would you like to learn more about? Check all that apply.

- Montessori at Home
- Positive Discipline
- Toilet Learning the Montessori Way
- Other...

Check all that apply. The best day(s) for me to attend online parent education events is/are:

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
Each online event will be 1 hour long. The best time(s) for me to attend online parent education events is/are between the hours of (Check all that apply):

- [ ] Between the hours of 4:00-6:00 pm
- [ ] Between the hours of 5:00-7:00 pm
- [ ] Between the hours of 6:00-8:00 pm
- [ ] Other...

I understand what it means to “follow the child”.

- [ ] Yes
- [ ] Somewhat
- [ ] No

I understand what are “Sensitive Periods”.

- [ ] Yes
- [ ] Somewhat
- [ ] No
I understand the difference between “toilet learning” and “toilet training”.

- Yes
- Somewhat
- No

What questions do you have about the Montessori philosophy?

Long answer text

After section 3  Go to section 4 (Attitude Scale)

Section 4 of 4

Attitude Scale

Please complete this attitude scale. I encourage you to be as honest and open as possible. The information you provide will help me plan the best way to support you in attending online workshops. I appreciate your time in helping me research online parent education events.
I am confident in my skills in using a computer or laptop.

- very confident
- somewhat confident
- not at all confident

I am confident in my skills in using web-based sites for video conferencing such as 'Zoom.'

- very confident
- somewhat confident
- not at all confident

I am confident in my skills in using a mobile device.

- very confident
- somewhat confident
- not at all confident
I am confident in my skills in using applications within a mobile device.

- very confident
- somewhat confident
- not at all confident

I am confident in my skills in using mobile applications for video conferencing such as 'Zoom.'

- very confident
- somewhat confident
- not at all confident

I am confident in my understanding of the Montessori philosophy.

- very confident
- somewhat confident
- not at all confident
I am confident in my understanding of how my child's daily school routine relates to the Montessori philosophy.

- very confident
- somewhat confident
- not at all confident

I am confident in implementing the Montessori philosophy at home.

- very confident
- somewhat confident
- not at all confident

I am confident in using positive discipline strategies with my child.

- very confident
- not at all confident
I am confident in integrating the toileting routine at home.

- very confident
- somewhat confident
- not at all confident
Montessori 101

Please provide as much information as you can on the open-ended questions. I encourage you to be as honest and open as possible. The information you provide will help me plan future online workshops. I appreciate your time in helping me research online parent education events.

Name: *

Short answer text
Did you attend the live online webinar on Jan. 25, 2020? *

- Yes
- No
- I watched the recorded webinar

Please check the topic of the online workshop you attended: *

- Montessori 101
- Positive Discipline
- Montessori at Home
- Toilet Learning
Did you like using the online format? *

- Yes
- No

Please specify why you liked or did not like using the online format: *

Long answer text

Did you have any difficulty joining/logging into the online workshop? *

- Yes
- No

If you answered yes, please specify the reason(s) you had difficulty logging into the online workshop:

Long answer text

Did you learn more about the topic because of attending the online workshop? *

- Yes
- No

If you answered yes, please specify what you learned in 1-3 sentences:

Long answer text

If you answered no, please specify what you had wanted to learn in 1-3 sentences:

Long answer text

Did the online workshop provide you the opportunity to connect with the teacher? *

- Yes
- No
Did the online workshop provide you the opportunity to connect with other parents? *

- Yes
- No

Please write any other suggestions or feedback:

Long answer text

After section 2 Submit form

Section 3 of 5

Untitled Section

Description (optional)
I was not able to attend the online workshop because:

- I was at work
- I had prior commitments
- I had family responsibilities
- The topic is irrelevant to me
- Other...

Please give any feedback or suggestions that would help you potentially attend any future online workshops:

Long answer text

Submit form
I was not able to attend the live online workshop because: *

- I was at work
- I had prior commitments
- I had family responsibilities
- The topic is irrelevant to me
- Other...

Please give any feedback or suggestions that would help you potentially attend any future online workshops:

Long answer text

Please check the topic of the recorded workshop you watched: *

- Montessori 101
- Positive Discipline
- Montessori at Home
- Toilet Learning
<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you like using the online format?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Please specify why you liked or did not like using the online format:</td>
<td>Long answer text</td>
</tr>
<tr>
<td>Did you learn more about the topic because of watching the recorded webinar?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>If you answered yes, please specify what you learned in 1-3 sentences:</td>
<td>Long answer text</td>
</tr>
</tbody>
</table>
If you answered no, please specify what you had wanted to learn in 1-3 sentences:

Would you attend future online workshops? *

- Yes
- No

After section 4  Submit form

Untitled Section

Description (optional)
Appendix C

**Observational Records**

I will fill up this observational form while watching a recording of the online workshop. I will fill up a form for each online workshop.

<table>
<thead>
<tr>
<th>Name of online workshop</th>
</tr>
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<tbody>
<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Date and time of the online workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>How was my experience in creating the online workshop?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Question</td>
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<tr>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>How many parents attended?</td>
</tr>
<tr>
<td>How many parents asked questions?</td>
</tr>
<tr>
<td>Were there any social cues or body language that suggests active engagement? (i.e. nodding, commenting, etc.)</td>
</tr>
<tr>
<td>How many questions were asked?</td>
</tr>
<tr>
<td>What questions were asked?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td><strong>Was there an interaction between parents?</strong></td>
</tr>
<tr>
<td><strong>Did I come across any technical difficulties during the workshop?</strong></td>
</tr>
</tbody>
</table>
Did the parents come across any technical difficulties during the workshop?

Other observations made that might help improve future online workshops:
Did I receive any questions, feedback, messages, emails, etc. about the content after the online workshop?
Appendix D

Post Questionnaire

Completion of these questions is voluntary and confidential. I encourage you to be as honest and open as possible. There are no wrong or right answers. I appreciate your time in helping me research online parent education events.

Name:
Your answer
Date
Date

I am interested in attending online parent Montessori education events related to the toddler age group.

- Yes
- No

Which topic(s) would you like to learn more about? Check all that apply.

- Montessori at Home
- Positive Discipline
- Toilet Learning the Montessori Way
- Other:

Check all that apply. The best day(s) for me to attend online parent education events is/are:

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday

Each online event will be 1 hour long. The best time(s) for me to attend online parent education events is/are between the hours of (Check all that apply):

- Between the hours of 4:00-6:00 pm
- Between the hours of 5:00-7:00 pm
- Between the hours of 6:00-8:00 pm
- Other:

I understand what it means to “follow the child”.

 
I understand what are “Sensitive Periods”.

- Yes
- Somewhat
- No

I understand the difference between “toilet learning” and “toilet training”.

- Yes
- Somewhat
- No

What questions do you have about the Montessori philosophy?

Your answer

Next