

Virtual Montessori: A lesson in adaptability

**We went all in,
and learned
a lot along
the way**



BY **KATIE MOSQUERA**

Carroll Creek Montessori Public Charter School (CCMPCS) is a public charter school in Frederick, Maryland, founded in 2012 and now offering Montessori primary through 8th grade as well as Spanish instruction for just over 300 students.

Spring 2020

This March, along with schools across the country, CCMPCS was thrown into virtual instruction with little notice. With support from the district, and a lot of virtual collaboration, teachers began building virtual learning platforms, working tirelessly to provide resources for learning and supports for scaffolding. We also knew we could rely upon Montessori students' familiarity with independent work. Teaching remained asynchronous for most of the spring.

Preparation for Fall 2020

Anticipating a return to virtual learning in the fall, teachers used personal time throughout the summer to collaborate and to learn the district's learning platform, Schoology, where we created a resource hub with pre-recorded lessons and virtual material. Our school improvement team met in August to reflect on our spring experience, refine online practices and create

sustainable, developmentally appropriate plans for instruction. The team built and shared procedures, expectations, and routines for students, teachers, and families/caretakers. Teachers collaborated on a schoolwide schedule, and teams at each level identified and created Montessori materials such as golden beads, the checkerboard, the stamp game, grammar symbols, and sandpaper letters, for students to work with at home. We purchased, downloaded, and copied some materials and created others from scratch.

When school began, teachers held virtual classroom orientation meetings with students and parents. We held tutorial sessions on the virtual learning platform, and set up a Google Meet resource center, open daily to support students, teachers, and parents as they adjusted to virtual instruction. Classroom assistants prepared to serve as online meeting monitors, helping with technical issues, freeing up the teacher to instruct.

for students we considered at risk in the virtual learning environment.

The CCMPS staff was prepared to do whatever it took to implement Montessori pedagogy successfully online. Teachers spent a great deal of time learning about online tools and practicing using them. At team levels, teachers collaborated and brainstormed ways to foster hands-on, individualized learning, and student choice and independence via the virtual platform.

Obstacles

Staff members who had used virtual tools in other educational settings found that teaching virtually was not a huge leap. For others, who had spent much of their career in Montessori classrooms, just the thought of creating another account, setting up student passwords, or relying on the internet was daunting. They helped one another, taking one step at a time.

Still, as instruction got underway, we faced one challenge after another.

Parent support varied widely, from too much to not enough

We also added to our counseling staff to boost social-emotional support for students, teachers and families. Alongside the county, we worked to ensure that all students had access to computers or tablets and reliable internet connections. We set up tutoring for those students who showed areas of need based on standardized testing in math, and set up in-person instruction

Chromebooks we purchased were backordered until early 2021. Students using tablets or smartphones lacked the same access to learning materials. Internet interruptions regularly blocked students and teachers from accessing the learning platform or Google Meets.

Scheduling lessons by grade level

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constrained individualized instruction—we lost our ability to be spontaneous, to follow the child and their interests. Individualized instruction now took place when helping students complete their work, not when presenting new lessons.

Gauging the amount of assistance to provide a student online was challenging. Providing guidance without jeopardizing a student's independence, or taking away their ability to complete the work themselves, takes a careful balance. Hands-on demonstrations or presentations for multisensory learning (such as letter formation) are hard when teachers can't really see what the students are doing. Instead of practicing each letter independently with a control of error, teachers found students relying on the parent and the teacher, holding up every single letter for reassurance. Students can also see each other's work and want to compare. During small group lessons, teachers found it challenging to provide a quick redirection, support for a struggling student, or alternative materials if needed.

There was less scaffolding for students who did not complete work. In the classroom, they are present for a conversation or to help create a work plan, and other students are available to mentor and support. In synchronous virtual small or large group lessons, or with asynchronous follow-up work via Schoology, there are not as many supports.

Eye contact is critical to in-person learning: teachers make adjustments based on students' nonverbal feedback. Without a physical presence, it is easy to keep instruction generalized and not adjust to responses. In Spanish classes in particular, students and the teacher listen intently to find the meaning of each speakers' words, and gestures, visual supports, and movement are critical.

Parent support varied widely, from

too much to not enough. While some parents supported independence in their children at home successfully, others have the impression that once children have materials, an area to work, and an internet connection, they need no more support. Teachers work with the students, present new ideas, and provide time for synchronous practice, but they are not in homes to observe follow-up work. Parents need to be an extra set of eyes. And many students are trying to complete school work in an environment not suitable for learning.

Yet some parents assist too much, helping with work or answering a question in class, when the child should build that skill on their own. Parents naturally tend to teach the way they learned instead of encouraging the child to use the materials we sent home. Parent presence in Google Meets can be daunting for teachers, who feel they are being observed or that they are teaching both the student and the parent.

The staff struggled to get to know students new to the school and to their classrooms. Getting acquainted during a Google Meet or a small group lesson is not the same as in person. Younger students come to the Meets, but it is often difficult to gauge if they are absorbing the instruction. Students in middle school often kept their cameras and microphones turned off or did not attend at all. For the students who don't come to class or turn in work, teachers had no input and no data. We worry about the students with their cameras and microphones off: What about their well-being? Do we really know if they OK? In some cases, teachers or school counselors have been able to talk with parents, but not all.

Students also do not have much of a chance to get to know one another. They are missing social and interactive aspects of schooling. And so are the teachers. Teachers miss the connection

with the students.

What we built

We used the virtual platform to provide most of the Montessori lessons students would receive in the classroom, and the materials we sent home were used daily. Teachers used tools such as Pear Deck, Kahoot, Quizlet, Scratch, FlipGrid, Screencastify, Gimkit, Padlet, and Code.org. We used breakout rooms and simultaneous Google Meets to observe students working in small groups. Several teachers used a flipped classroom where students view a pre-recorded video and then use synchronous class time to practice new skills in small groups.

One primary teacher differentiated a small group lesson by giving two students one word to form and two another, giving a new word to the group that finished and supporting the children taking longer. Lower elementary students identified research topics of interest to their families and created presentations with their parents. Elementary students used Pixton to design their own avatars and include themselves in comics with sentences containing a subject, predicate, and direct object.

During community meetings, students responded to social-emotional learning prompts weekly in Pear Deck, and took part in whole class activities and lessons about voting and the electoral process, service learning, and practical life skills. Upper elementary students designed movement break videos for their classmates, took a virtual field trip to explore Ancient Egypt, and hosted a virtual visit from a scientist.

A group of elementary students identified a practical life activity they want to learn how to do at home, shared their ideas with the class on FlipGrid, and documented the process

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of learning and carrying out their tasks on Google Slides. As a culmination to this big work, the students wrote a script, created and edited a movie in WeVideo, then presented their video to the class. The videos are now on display in their Schoology classroom for others to view.

Middle school art students explored land art, with its reliance on natural and found materials. They created earthworks from lower petals, seeds, leaves, rocks, light, shadow, time, and change in various natural spots throughout the county and took photos of their endeavors.

Middle school students read and annotated text in preparation for text-based, student-led seminars. After the first one, a student exclaimed, "That was actually kind of fun!" Although teachers could not see all of their students' faces, students used the hand raise feature in Google Meets. Students encouraged one another to participate and there was more engagement than usual.

The school choir created a virtual ensemble in place of the winter concert. Each student recorded him/herself several times to ensure the piece came out the way they wanted it to. They discovered how important it is to blend voices and how difficult that can be when they are not together in the same space.

The set schedule allowed for students to receive a lot more lessons than they would have in school. Students are progressing through the curriculum at a faster pace. With more lessons scheduled, students receive more direct instruction daily and teachers have found they are presenting an even wider range of content.

Teachers collaborate weekly, sharing resources, strategies, and professional learning. They reflect on the Montessori mindset and identify ways to implement freedom and responsibility, and to support independence. Special

education teachers are team teaching with classroom teachers for the first time. School counselors join team meetings to collaborate on ways to support students emotionally and socially.

We hosted a parent night on student independence, emphasizing the importance of student freedom and responsibility at home, and another one for parents to ask questions and learn more about the virtual tools their students are using. Our school counselors hosted an evening explaining Tier I, Tier II, and Tier III supports and how parents can provide emotional support during the pandemic. We posted links on our school website to resource pages for parents covering these topics.

Parents and teachers worked together to identify the right amount of independence and parent support for individual students. With both parent and teacher guidance, one student who was struggling to complete work started using sticky notes for reminders and meeting with the teacher more often for academic guidance. Parents of primary students set up a clearly defined space for their children to work with accessible materials and supplies for learning child's environment at home with materials. Older students shared strategies for staying organized, completing work, and remembering to attend classes during class meetings.

Teachers intentionally built relationships with students. Designated time for office hours and 1:1 meets provided space for students to delve deeper into content, ask for assistance, have a casual conversation with the teacher, or simply work side by side. Just knowing an adult is present creates a sense of connection.

Teachers also provide space for classroom community building and for students to connect with one another during informal class meetings at the beginning of each day. Sometimes, students prefer to talk about what they are learning in class. Other times, they

prefer show and tell, games, or songs. Students love to join "social hours" facilitated by the school counselors, to see and have fun with friends.

Older students lead community meetings, give lessons to their younger classmates, initiate problem solving, and model the use of materials and work completion. Middle school students completed a survey about their interests, then the teacher connected students based on common themes. They took this even further, creating dream boards and presenting them to the class. This not only built on the community's theme of identity, but helped students to get to know one another, as well as the teacher.

The school counselors have a virtual classroom set up so that students can easily find resources and submit requests to meet with the counselor. They give lessons to each classroom every other week, rotating amongst social skills, diversity, online learning skills, and mental health topics. Upper elementary and middle school students fill out surveys about the topics they would like for the counselors to cover in future lessons, give feedback about the lessons they received, and share any personal concerns.

What we learned

We learned that we can stay true to Montessori principles as long as we remain mindful and willing to follow the child. We began the fall semester with open office hours, where students get support online. As time went by, office hours turned into one-on-one meetings with students, small group lessons, and time for students to simply connect with an adult, depending on student needs.

In the virtual environment, we have to be intentional about things that would happen spontaneously in the classroom. Instead of relying on the

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child to initiate the next lesson, or for a one-on-one conversation to gauge what the student needs to learn next, teachers need to have lessons planned and materials ready to go before the week begins.

In the virtual setting, we also cannot assume that our relationships with the students, and their relationships with one another, will grow naturally over time. We need to facilitate this connection. The teacher's presence makes a difference. We have seen students who were high performing in school doing little work at home. Once the teacher reached out and let the student know that she was there for them, but also expected them to do their part, these students then engaged.

The online platforms and tools the students are using online have become the virtual environment. Preparing follow up work is preparing the environment. What materials are available for the students to work with in order to discover new concepts? Is the follow-up work something meaningful that the students can access? Is there a choice in the way students can practice the skills? How will student progress be assessed?

Teachers have developed a greater awareness of themselves as teachers. They can see what they look and sound like to the students, asking questions such as, "Am I making sense? Am I talking too fast? Am I making a weird face when a student responds? Do I look like I am grimacing?" Teaching virtually allows us to see ourselves from the student perspective. And, in a similar way, the students can see what they look like as learners.

What will we continue when we return to "normal?"

During virtual learning, we found it necessary for teachers to be intentional about connecting with students and supporting them socially and emotionally. While this is a strong aspect

of Montessori, many of us want to continue being intentional with our relationships with students. If we can naturally get to know students in person over time, why not be intentional in getting to know them better and become able to meet their needs even more?

Families are essential partners. We can reinforce the home-school connection by keeping the parents more in the loop with their child's education and provide explicit expectations for parent, teacher, and student.

Teachers do not want to lose the gains from the use of digital tools. Virtual tools have provided student choice for ways to present their work. They can demonstrate their learning with paper and pencil in their work journals, or with slideshows, videos, Jamboard, and other digital products. Curated internet research tools are more extensive than classroom resources, allowing students curious to know more up-to-date information about the topics they research to explore. The online reading platform we use in Spanish enables students to further knowledge at their own pace, mimicking the instructional process in the classroom. Our Spanish teachers hope to continue this individualized learning when we return to school.

Now that we are familiar with the tools and resources available, why not continue virtual learning, such as activities on Seesaw, for students who need to stay at home for extended periods of time due to an illness or accommodation?

During virtual learning, we noticed many upper elementary students using digital tools to convey their learning with ease. Using digital tools is natural for upper elementary students, as they make the move to middle school. This raises the question, "Are upper elementary students at a sensitive period for using technology as a mode of learning?"

We also realized the need for our students to develop good digital citizenship. When the students move to college and career, they will be expected to use digital communication, and to use it responsibly.

Moving into 2021, with the possibility of starting a hybrid model and later back to "normal," we recognize the need for adaptability and intentionality. We see the power of connection with children and families. Each of us grew as educators and Montessori practitioners. We experienced implementing Montessori practices in ways we could not have predicted. Although we have plenty of room to grow, we know it is possible to adapt Montessori pedagogy to the 21st century.

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