

The NAMTA Journal

Connecting Montessori to the World

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PREFACE

By Jacquie Maughan

In the fall of 1975, Volume 1, Number 1 of the North American Montessori Teachers' Association Quarterly was published. The title of that journal was: "Day Care and the Montessori Experience." In the preface, editor David Kahn asked the question, "Is Montessori Day Care Justifiable?". This and a multitude of other topics NAMTA has considered have continued to reflect the challenges, gifts, and history of the Montessori movement in North America and beyond.

Since that first publication, NAMTA has produced 43 volumes with over one hundred issues. Our publication began as a quarterly; in Fall-Winter 1986, the Quarterly was re-named The NAMTA Journal. In addition to the journals, NAMTA has produced many other publications to better serve the Montessori community.

In that 1986 Journal, printed on the first page is the following statement:

"WHAT IS NAMTA?" The North American Montessori Teachers' Association provides a medium of study, interpretation, and improvement of Montessori education. These purposes are accomplished through a widespread communications system of periodicals, an audiovisual library, workshops and research. NAMTA endeavors to create real services designed for the teacher and the school."

And for the next thirty-plus years, under the leadership of David Kahn, NAMTA continued to fulfill that purpose. The NAMTA Journal has become the leading academic journal of the Montessori movement – archiving the history of its development, providing a continued study of Montessori principles and its evolution, and recording the dialogue within Montessorians, as well as the voices of influential thinkers and movements beyond Montessori.

We are pleased to present to you Volume 44, Number 1. This volume series is entitled "Connecting Montessori to the World." We present to you the voices of key speakers at the 2018-19 conference series. And additionally, we reached beyond that series to capture three inspiring stories highlighting experiences from the communities of Pond Inlet, Nunavut; Abuja, Nigeria; and to a sail boat journey through around the Caribbean.

In all of these articles, we are called upon to reflect and deepen our understanding of our work and of our mission as Montessorians:

As Sarah Werner Andrews quotes in her article: "To go beyond Montessori is to rediscover Montessori.

Maria Montessori is waiting for us...in the future."

And John Merrow leaves us with a challenge. He concludes his presentation with the following: "I wish you well as you expand and share the Montessori vision. America needs it more than ever."

We look forward to following this issue with Volume 44, Number 2. This issue will consider our theme, "Connecting Montessori to the World: Past, Present and Future."

The NAMTA Officers recognize that our organization has had a deep and significant impact on the evolution of Montessori in the United States and beyond. Our decision to maintain NAMTA as a non-profit organization is based upon our commitment to ensure our legacy and to make sure that the knowledge that is represented by our conferences, journals and publications does not disappear – but rather will be available to serve to Montessori movement far into the future and will continue to connect Montessori to the world, past, present and future.

As the NAMTA Officers oversee this transition of NAMTA we are pleased that you can still access our publications and resources on the NAMTA website: www.Montessori-namta.org. We will also be working with AMI over the next year to digitize our publications in order to make them available now as well as in the future.

REFINING OUR PRACTICE AS MONTESSORI TEACHERS: CULTIVATING A DEEPER UNDERSTANDING OF THE METHOD, OURSELVES, AND THE CHILD



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REFINING OUR PRACTICE AS MONTESSORI TEACHERS: CULTIVATING A DEEPER UNDERSTANDING OF THE METHOD, OURSELVES, AND THE CHILD

by Sarah Werner Andrews

The most important task of the Montessori teacher is to connect the children with their environment. To do this well, we must go beyond simply presenting a material to a child and think deeply about how, when, and why this connection takes place. To elevate our practice, we will look at the physical, intellectual, and spiritual preparation we first learned about during our teacher training and explore what this means for experienced teachers who seek to refine their work as Montessori teachers and develop a true partnership with the child.

This talk was presented at the NAMTA Conference titled “Building Partnerships: In Support of the Child, Teacher, and Parents”. Baltimore, Maryland. October 11-14, 2018.

In 2010 I attended my first International Trainers Meeting. It was held in Rome, and we had the remarkable opportunity to hear presentations by several of the leading Montessori scholars from the University of Rome. Dr. Raniero Regni delivered an incredible lecture called “Geopedagogy and the Nature of Childhood,” which ended with the words,

*“To go beyond Montessori is to rediscover Montessori.
Maria Montessori is waiting for us...in the future.”*

Those words gave me chills when I first heard them, and they have stayed with me ever since, taking on new meaning and importance as I think of them in different contexts. I think of these words when I hear people saying that Montessori education is outdated and that children are “different” today, or when people scoff and ask how a Method that is over 100 years old can possibly be relevant in today’s world.

I think of these words when I hear people saying that “Montessori isn’t enough,” and how quickly we sometimes conclude that we need to bring in specialists or supplemental curriculum. Even though I am an ardent supporter of collaborating and sharing resources with experts in other fields, I sometimes worry that we’re losing sight of the depth of what Montessori does offer, or that perhaps we don’t look deeply enough, or take the time to find our answers.

To go beyond Montessori is to rediscover Montessori.

I think of these words when I reflect back on my own early years in the classroom, when I was faced with implementing my Montessori training. I questioned whether some parts of my training really worked, and I sometimes substituted other materials or activities. In my first year of teaching I confidently told my AMI consultant, “Oh no, I don’t do walking on the line anymore. I tried it, but the children don’t like it. They just push and shove, and argue. None of us like it very much, so I quit doing it. When the children need movement we just go outside.”

That consultant, with grace and kindness, responded gently, “Now, let’s just think about that for a moment.” She helped me to look at what the children were showing me, and re-examine how I was introducing Walking on the Line. She helped me consider that Walking on the Line actually could possibly serve a developmental need in the children that was different than the playground, and what I might do differently to make Walking on the Line more successful.

She encouraged me not to give up on Walking on the Line or abandon it as something that wouldn’t work with my class, was outdated, or seemed unappealing to “today’s” children. She challenged me to go beyond the surface disorder and try to understand on a deeper level what the children were showing me. Perhaps most importantly, she showed me how to trust the Montessori method, to trust the children, and trust my training. Instead of turning away, she encouraged me to lean in. She encouraged me to *rediscover Montessori*.

Over the years, there were other materials and activities that I was tempted to turn away from, and sometimes I did - for a while. But every time, when I circled back and really looked at a material that I didn’t really like, or that I didn’t think the children were responding to, I found that it was actually me; I didn’t really understand it. The red rods? Why was it that the children seemed to love the pink tower but no one loved the red rods...? And what about those constructive triangles...what do children actually do with them? It took a long time, but every year, I chose two or three materials that I wanted to understand better, and I dug in, I observed the children, I worked with those materials myself, until I was satisfied that I had rediscovered them.

To go beyond Montessori is to rediscover Montessori.

My good friend and fellow trainer at Montessori Northwest, Elise Huneke-Stone had a similar experience in her early years of teaching when she decided to do away with the elementary work journals. It was too much trouble, the children didn’t want to write in them, and she didn’t know what to do with the journals anyway! But someone convinced

her to take another look, to dig in, and to come to a deeper understanding of what those elementary children needed, and trust that they could do it. Instead of moving away from what she learned in her training, she leaned in – to *rediscover Montessori*.

Today the elementary work journal has become one of her most cherished personal and professional contributions. Elise understands the potential and power of those journals better than anyone I know.

I'm going to tell you another story, because telling stories is how human beings connect to one another across time and space, it's how we learn to relate to each other on an emotional and social level, and because it creates a context for learning. And, because Montessori teachers tell stories.

I loved being in the classroom, and (most of the time!) I loved teaching. I taught at the primary level and at the 6-9 elementary level, and I loved them both in different ways. Every year, I hosted student observers and practice teachers, because I wanted them to see their training in action. I wanted them to know that they could trust their training and could trust in the children. I wanted them to be able to see what they wrote about in their albums happening in real life, every day, with real children. It was a big decision for me to leave the classroom and become a teacher trainer.

People who know me well know that I question everything, and I hold myself and others to a very high standard. One thing I knew for sure was that even though I believed that Montessori worked, I could not stand in front of a group of intelligent, educated adults and talk to them about things like the "absorbent mind", "cosmic education", "normalization and deviation", "the spiritual embryo", or even worse, "the psychic embryo", without something more contemporary to back me up! I had to read and research, and see for myself that Montessori's findings and conclusions were supported and still relevant. I needed to go beyond Montessori, and so I did.

It was great fun! I found that "MNEME" was the name of a punk rock band. When I started researching the psychic embryo, I found images of Dr. Sylvia Dubovoy. And of course, since I stand before you as an AMI Primary Trainer, I also found that no matter where I looked, or how far I went beyond Montessori - there she was. Dr. Montessori.

*"To go beyond Montessori is to rediscover Montessori.
Maria Montessori is waiting for us... in the future."*

To go beyond Montessori, to look at what contemporary research tells us, is to rediscover Montessori, because it is all there. In her books, in your training. This is why we have garnered support from Dr. Angeline Lillard, Dr. Stephen Hughes, Dr. Adele Dia-

mond, and Dr. Patricia Kuhl (a specialist in early childhood language development at the University of Washington who even tops Montessori when she described babies as “linguistic geniuses” whose minds have a “celestial openness”!)

I had to learn, for myself, through my own work, my own observations, and my own efforts of will, to trust Montessori.

But what about **Children Today**?

Are the children of today different than in Montessori’s day? Are they more challenging? Do they experience more obstacles? Are they harder to teach? Yes, and no.

Consider the circumstances of that first Casa. At that time, San Lorenzo was a wretched area of Rome where 30,000 people were crowded together living in dire conditions. There were unemployed workers, beggars, prostitutes, former convicts, and children, all living in partially constructed shelters. Do you think those children were neurodiverse? Did they experience the effects of generational poverty?

Montessori describes those children as, *“timid and clumsy, apparently dull and unresponsive. They could not walk together and the mistress had to make each child take the pinafore of the one in front... they wept and seemed to be afraid of everything... they did not answer when spoken to. They were really like a set of wild children. (Not) like the wild boy of Aveyron, but (wild) in a forest of people, lost and beyond the bounds of civilized society.”*

Did the children Montessori worked with experience trauma and loss? Yes. In *The Secret of Childhood*, Montessori writes about the Messina orphans whose homes and families were destroyed. Following a devastating earthquake in Sicily, sixty children were discovered among the ruins. The children were severely traumatized. They were numb, silent, and wouldn’t eat. Montessori describes them as “lost in sadness.” They awoke in the night screaming and crying. The Queen of Italy made them her personal concern, and she had a Children’s House built for them, taught by nuns in the Montessori method. You had better believe those children had PTSD. They had ACES.

And what about concentration – surely today’s children have a worse time with attention than in Montessori’s time. But no, Montessori shared letters from teachers writing

To go beyond Montessori, to look at what contemporary research tells us, is to rediscover Montessori, because it is all there.

¹ Montessori, *The Discovery of the Child*, “The History of Methods,” p. 31-32, Kalakshetra, 1966, Johnstone trans.

about the children of privilege in America, *"The children snatched the apparatus from each other; if I tried to show something to one child, the others dropped what they were doing and noisily, without any purpose, crowded around me... They ran around the room without any end in mind... they took no care to respect things; they ran into the table, upset the chairs, and walked on the apparatus."*

And from Paris, *"I must confess that my experiences were really discouraging. The children could not concentrate on any work for more than a minute. They had no perseverance and no initiative... Sometimes they rolled on the ground and upset the chairs."*

These were the children in those early classrooms. If the Montessori Method didn't work, if it didn't produce dramatic changes in the children in San Lorenzo, in the Messina orphans, in the children of privilege in Paris and America, there would be no Montessori Method. All of that would have just been one more experiment that didn't work. But here we are.

Do we need to go beyond Montessori, or do we need to rediscover Montessori? Maybe it isn't that the children are different, maybe it is us. Can we do something different; can we help ourselves by "rediscovering Montessori"?

I'd like to bring your attention to another quotation that has inspired and challenged me over the years. This passage is from *The Advanced Montessori Method, Vol. 1*, and concerns the preparation of the teacher: *"If pedagogy is to take its place among the sciences, it must be characterized by its method; and the teacher must prepare herself, not by means of the content, but by means of the method."*

I'm sure that part of why I've been musing on this because I just started a new course, and often at the beginning of a course, the students are consumed by the idea that there is one right way – the one right way to illustrate something, the one right way to scrub a table, or the one right way to tie a bow. They just want to know the answer to the question: "What ...?" *What* to present. *What* to say. And of course, as they begin to learn about the materials, "What do we do with this?" In this early stage in their training, they can only focus on the CONTENT.

The same is true for many people. We are currently a very curriculum and content-driven society. Many people think that what makes a Montessori school is having the Montessori content – the materials and presentations. Many people think that what makes a Montessori teacher is delivering that good Montessori content.

² Montessori, *The Secret of Childhood*, p. 152, Ballantine.

³ *Ibid*, p. 153.

⁴ Montessori, *The Advanced Montessori Method*, Vol. 1, p. 102, Clio.

But in this quote, Montessori tells us the teacher must prepare herself, **not by means of the content**, but by means of the **method**. How do we do that? How do we prepare ourselves in a method? Guess what! I'm going to tell you exactly how to do that!

We are going to go **beyond Montessori** to the cutting edge of innovation in education. Here are "five of the most important new teaching methods making a positive impact on student's learning in the modern world" from an organization dedicated to innovation in education.

1. **Personalized Learning** – when educators seek to tailor challenge, lessons, and instructional style to each student's needs.
2. **Project Based Learning** – when teachers are collaborators and coaches, and help their students navigate interesting and challenging projects together.
3. **Place-based Learning** – this gives students real-life, authentic learning experiences that help them to connect and relate to the people in the community doing work that the students are learning about and are interested in.
4. **Formative Assessments** – these help teachers look at each child individually, and make minor course corrections with a student along the way in order to help them stay on the right track when they are learning something new.
5. **Maker Education** – this gives students a chance to engage their creative side while engaging in "academic work" (plays, dioramas, river models, electric circuits)

To go beyond Montessori is to rediscover Montessori. Let's break these down:

Personalized Learning is every lesson we give. **Project-based Learning** is embedded in all of our elementary follow-up work. **Place-based Learning** is just another way to describe our Going Out program – connecting children to their community and the people working in the real world doing the same things they are interested in. We do **Formative Assessments** every time we analyze the difficulty of a task or concept, break it into steps, and offer one step at a time. Could we think of our Points of Interest as little assessments along the way? What about the Control of Error? Is that actually a Formative Assessment? **Maker Education**? See "Project-Based Learning" - and I think of Practical Life as the original Maker Education! These five techniques are currently considered the best **methods** out there to support children's learning.

⁵ <http://www.gettingsmart.com/2017/10/5-new-teaching-methods-improving-education/>

What about the methods and models specific to early childhood? **The Pyramid Model** is currently the best practices **method** adopted nationwide for early childhood education. It is considered a “tiered model” because everyone starts at the bottom, and children move up as they need more interventions or supports.



The base of this pyramid, what every child needs and receives, are nurturing and responsive relationships in a high-quality supportive environment. According to the research, most children’s social and emotional needs are sufficiently met through nurturing relationships in a supportive environment. (85% of children need only that first tier.)

Some children, about 15%, will need additional targeted approaches to teaching social skills, specific extra help. For example, a child who consistently runs up to children and knocks them down might need a special lesson on how to ask for a hug. About 5% in the school might need intensive targeted interventions. This is where we need to bring in the specialists and collaborate to help children who need the most work. This is not a Montessori Model, but it sure looks like our Method, doesn’t it? What all these different models and methods tell me, is what Margaret Stephenson wrote in the 1970’s: *“In reality, there is no ‘Montessori’ method, there are not ‘Montessori’ principles – what we are speaking of are universal principles guiding development.”*

Montessori herself was clear that these universal principles were not her invention, they were there for anyone to discover. In fact, you can read in her books an increasing frustration with the world because they continued to look at her, and at *her finger*, instead of the direction she is pointing – *to the child*.

⁶ <https://challengingbehavior.cbcs.usf.edu/Pyramid/overview/tiers.html>

⁷ Stephenson, (1970) “Montessori: An Unfolding-The Child from 3-6, p. 7

The Heart of the Montessori Method

“If pedagogy is to take its place among the sciences, it must be characterized by its method; and the teacher must prepare herself, not by means of the content, but by means of the method.”

It is here we find the heart of the Montessori Method – The Child. Right there, in front of us. To understand the Montessori Method is to understand The Child. While there are universal principles in development, we know and understand that every child is different, every child is unique. This is why it is not enough to simply offer the content – the materials for development. We cannot simply give lessons – deliver the content. This will never be enough. This will not reach the soul of the child; this will not “enthuse him to his inmost core.”

What sets Montessori education apart from all other approaches, even those that use similar “methods,” is that our “method” is respect, trust, and faith in the Child. This is why, although we can go beyond Montessori and learn from other approaches other specialists, *we also must come back to The Child*. There is no one else who can answer our questions about what to do. The answers come from understanding our Method – The Child.

In *The Absorbent Mind*, Dr. Montessori writes, *“Only her intelligence can solve the problem, which will be different in every case... The good doctor, like the good teacher, is a person. Neither of them are machines, merely prescribing drugs, or applying pedagogical methods.”*

Don’t we get frustrated when we go to a conventional doctor and feel like we are just treated as a collection of symptoms, and not looked at as a whole person? Montessori is challenging us to use our intelligence and our observation skills to look at the whole child, to figure out what each child needs in order to connect to the environment.

Montessori tells us it is not enough to have eyes and knowledge, but that *observation is a habit developed through practice*. The details we need to see are subtle and not easily discernible by the untrained eye. She compares learning to observe a child to looking into the night sky and seeing stars, but not being able to identify particular constellations. It takes practice, continual learning, and the desire to see. But once our skills of observation are honed, we can see the details in the child’s development with passion and great interest; we too “discover the child.”

⁸ Montessori, *The Absorbent Mind*, p. 268, Kalakshetra

⁹ Montessori, *The Advanced Montessori Method*, Vol. I, “The Preparation of the Teacher,” p. 102, Clio

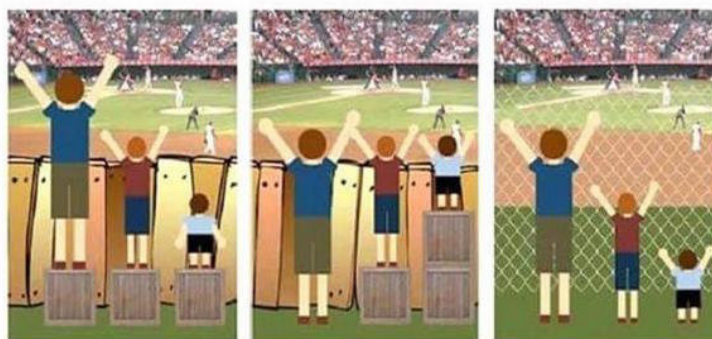
Without observation, regular, practiced, intentional observation, we can never implement the Montessori Method. Without observation, we can only be, as Ginni Sackett likes to say, “conventional teachers with really cool manipulatives.”

When we learn to really “see” the child, when we have trained ourselves in the art of observation, we then begin to feel a deep interest in the child, and Montessori says this interest is the motive, or power, which creates the spirit of the scientist.

However, observing like a scientist also takes patience. We’ve probably all experienced looking into a microscope, and perhaps it is unfocused, or we don’t know what we are supposed to be looking at, and we turn away, unsatisfied, or frustrated – thinking, “There’s nothing here to see! I don’t have time for this!” Yet Montessori tells us that it is not time we are lacking, but patience. It takes patience to keep looking until we find what we are looking for, and too often, we give up before we’ve found it.

Think about the difference between looking for something if you are not even sure it is there, as compared to looking for something you know is there, somewhere. In the first case, we give a cursory look, hoping to find it, but give up if it is not easily seen and found. In the second case, when we know that what we are looking for is there, somewhere, we keep looking. We take longer, we think where we saw it last, we think about where we were when we had it last, and we don’t give up until we find it. Our belief that *it is there*, makes us sure we can find it if we just keep looking.

Are we able to extend this certainty, this deep, scientific interest to the children in our care? Do we really believe that we will find the soul of the child if we just keep looking? Do we keep turning over every stone until we discover it? Or do doubts creep in that keep us from continuing to look... “Maybe Montessori isn’t for this child...” “Maybe this child needs a different environment...” “Maybe the sensorial materials just aren’t interesting to children anymore.” “Maybe it’s not fair to spend this much time observing one child, with all of the other children who need me too.” But “fair” is not “equal.”



¹⁰ Montessori, *The Advanced Montessori Method*, Vol.1, “The Preparation of the Teacher,” p. 103, Clio

True justice doesn't mean that there is a single law for all; this kind of justice puts everyone at the lowest level. Some children need more help than others- this will always be true. Real justice in education means removing obstacles to development, whatever those obstacles might be. Our work is to remove the obstacles to development. (And in this picture, let's remove the fence too, and invite everyone to play!)

When I was presenting to a group of teachers and administrators in New Orleans about supporting children in trauma, one of the teachers did bring up that she struggled with giving some children so much more of her time and energy. She felt like it was the most disruptive children who got all the attention, and felt that it wasn't fair to the other children, and wondered if that had a negative effect on the rest of the class. One of the school administrators stood up and told her, "Think about what those other children are seeing, when you work with the children who are the most disruptive. They are seeing that you are patient, that you are calm and loving even when a child is angry, that you are there to help them and protect them when they need it, and that you don't give up on them. What could be more important than that for the rest of the class to see? When they see you treating others with kindness and justice, they learn too, to treat others with justice and kindness." That is a lot more important than the next presentation with the stamp game.

The patience to keep observing, to keep trying, to keep searching for answers comes from our unwavering belief in the child. We have to believe in the light within every child.

This brings me to the third quote: Montessori wrote: *"All we really need to do is change our fundamental attitude towards the child, and love him with a love which has faith in his personality and goodness; which sees not his faults but his virtues."*

Montessori wrote those words in an article called "Disarmament in Education". "Disarmament" means to dismantle weapons – dismantling the weapons in education. In 1950, Montessori wrote about the state of war in education. "A war, the victims which are primarily, but not exclusively, the children. She writes that "the teacher is often the persecutor, although an unconscious persecutor. And that the war is not confined to the schools; it is everywhere. The war is between the strong and the weak; between those who have power and those who do not.

She said that we are in a state of mistrust, which resembles hatred, or at least a lack of love. Because what do we see in the children? We see their flaws and their mistakes. We see their misbehavior and their dis-regulation. But when a person loves another, we find

¹¹ Montessori, *The Absorbent Mind*, p. 286, Kalakshetra

¹² From an article Dr. Montessori wrote on 'Disarmament in Education'. The article first appeared in the *Montessori Magazine* Vol. 4 No. 3, July 1950 and was later reprinted in *Communication* 1965, 4

all of the good possible in them. Not only the obvious things, but the secret hidden virtues as well; things other people don't see. Isn't that true when we fall in love, and our friends say, "What does she see in him?!" Later, we might say too, "What did I see in him?!"

What are the steps to disarmament in education? What are the weapons we must disarm? They are our prejudices, our biases, our lack of faith in the child, our lack of faith in ourselves. Our fear.

It is hard to change a fundamental attitude, isn't it? It's hard to let go of our fears. It is hard to love that child who is disruptive, who is aggressive, who is whiney, or clingy, or dis-regulated. It's hard to have faith in that child's personality and goodness. The hardest work of all is to love the children who push us away, who push our buttons, who act unlovable.

And yet, it is the children who challenge us the most, who need us the most.

We are all flawed individuals, and it is hard to take that look deep into ourselves, and change our fundamental attitudes. But this is what we must do. There is no easy fix. We have to use everything we have, our mind and our heart; what we learn about in our training as our intellectual and our spiritual preparation. We have to rediscover Montessori.

First, we adopt an attitude of humility. At any moment, we have to be prepared to abdicate everything we thought we knew about a child, or ourselves, in the face of new observations or new discoveries. Again, this is the science of our art; like a scientist, we have to be ready to be wrong in order to make a new discovery of truth. Humility works together with patience. We cannot simultaneously see ourselves as knowing everything, and also give the children the time and opportunity to create themselves. Humility allows us to step away and observe, knowing that although we are facilitators, the child's most important work takes place *without us*. It takes patience to understand that self-construction is the work of the child.

We have to let go of seeing the children as an extension of ourselves, that our ego is wrapped up in what they do. I think this is the root of our discomfort, feeling that the

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¹³ Ibid.

children's actions reflect our ability as a teacher, or lack of ability. The children are their own beings. They are not us. We can't control them, but we can help them to control themselves. Self-construction is the work of the child. Children construct themselves from their experiences in their environment.

We cannot change the child; but we can change the conditions in the environment. What are the building materials we are placing in the environment? I'm talking about the 'psychological building materials' here, not the didactic materials. What's in there that doesn't belong?

Are we removing obstacles to development, or are we creating more obstacles? Are we blaming children, and getting frustrated, are we using our power over the child to manipulate their behavior, or are we giving the children the power – teaching children the skills to manage themselves? Self-construction is the work of the child.

Montessori tells us we must serve the child as a valet serves the master. We have to channel our inner Downton Abbey! Through careful observation, we determine what the child needs and prepare it for him. We are in the background, waiting, watching, offering support when needed.

We can change the conditions in our environment. We can change our fundamental attitude towards the child, and love him with a love which has faith in his personality and goodness; which sees not his faults but his virtues.

In this society, serving the child is a disruptive innovation. To trust children is considered irresponsible, foolish, and even dangerous. When we have faith in the child, we are disrupting the notion that the adults must always be in control. The revolutionary act, the subversive act, the disruptive innovation is to deny the typical conventional thinking that the power is out there - some new method must be better, that the answer is outside of us, outside of the child. To disarm the weapons of oppression in education, we must look inside of ourselves and look deeply into The Child – to our Method.

When we do this, then we truly follow the Montessori “method,” and we begin teaching for mutual liberation. The following is an excerpt from a paper called “Teaching for Mutual Liberation: A Microcosm of Equity.”

To disarm the weapons of oppression in education, we must look inside of ourselves and look deeply into The Child – to our Method.

¹⁴ Julian Werner Andrews, Unpublished paper, 2016. Brunswick, Maine.

“Too often, teachers adopt the role of oppressors, training their students to accept societal oppression, and teaching them to survive in an oppressive society, rather than working towards a liberated one. However, teaching also has the potential to empower students and demonstrate what a liberated society might look like – this is the power of emancipated education.

Education based in mutual learning, equity in experiences, continued growth, and the practice of liberty in the classroom would produce educational systems that could teach students that they have the capacity and power to shape and create their world, as opposed to teaching them that they are pieces of a static, unalterable environment.

Fostering this understanding is key to moving towards a just society. When people understand that they have the power to shape their world, they have the power to lead revolutions that push society in the direction of equity.

When teachers and students work in concert, and grow together to build liberating classrooms, their work will be reflected in society at large. And this is work; teaching for liberation is not an easy task, but one that requires a complete commitment of mind, body, and spirit.

To draw forth, rather than squash the potential of students, to demonstrate to them their intelligences and the power of their will, to show them that society is malleable and theirs to alter, and to recognize their own capacity for greatness – this is the potential of a teacher.

Following the child is teaching for mutual liberation.

Montessori education is a revolution. More than six decades after Montessori spoke out for disarmament in education, we still need that revolution. Now more than ever. But our revolution and our disruption to the status quo is based in love.

“The new education is a revolution, but without the violence. It is the non-violent revolution. After that, if it triumphs, violent revolution will have become forever impossible.”

LEARNING, LISTENING AND LISTENING WELL



Tessa Lochhead (on the left) co-founded the Pirurvik Preschool in 2015 with Karen Nutarak (on the right). The Pirurvik Preschool in Pond Inlet provides early childhood education (ECE) that is child centered and based on the Inuit Qaujimajatuqangit (IQ) principles and is enriched through the use of Montessori materials. The Pirurvik Preschool team is a Laureate of the 2018 Arctic Inspiration Prize (AIP) to develop new programming and training by supporting seven community daycares that span all three regions of Nunavut. The Pirurvik preschool team aims to improve the social well-being of children, families and communities by providing a positive first experience with education. Pirurvik Preschool is actively creating environments that speak to the communities' own needs and values by reflecting Inunnguiniq practices in these positive educational experiences for children, and their families.

LEARNING, LISTENING AND LISTENING WELL

by Tessa Lochhead

The Pirurvik School in Pond Inlet, Nunavut demonstrates how Montessori is not alone in providing early childhood experiences rooted in culturally and developmentally appropriate environments. By listening carefully to the many other community voices throughout the world, Montessori can more successfully support just, joyful education and the cultivation of peace.

An early childhood education that benefits and suits the needs of individual communities can have long-lasting impacts on the development of a child. In Pond Inlet, Nunavut, there was a long-standing need for a culturally-relevant early childhood education program, and one that spoke to the needs of the community. It is widely recognized that ECE programming, that is evidence based and culturally relevant, has a positive impact on the learning outcomes of students throughout their educational careers. The Nunavut context demands that children have a strong foundation in their cultural identity and language in order to increase their sense of confidence and identity in order to become resilient and proficient students. The Pirurvik Preschool [Pirurvik meaning 'A Place to Grow' in Inuktitut] satisfies these needs in an exciting and dynamic way.

The knowledge that is utilized at the Pirurvik Preschool in Pond Inlet (for children ages 3-4), is what has already been practiced in Inuit communities, for a very long time. Pirurvik's approach to ECE is a methodology based on the Inuit Qaujimajatuqanit (IQ) principles, which are grounded in the community, and is enriched through the use of Montessori materials. We call it an IQ-Montessori program. Our goal is to provide a culturally relevant learning experience guided by the IQ principal Pilimmaksarniq which allows children to learn at their own pace, which is a combination of one's ability, gift, drive, determination, motivation, and attitude at the time of learning.

The term Montessori can produce strong reactions for those who are unfamiliar with the method. There is an understandable hesitation in importing educational models from the south. This is further complicated by the history of colonization. As seen in other parts of Canada and the world, Montessori is a student-centered approach to learning that crosses all cultural and pedagogical boundaries. Both IQ and Montessori put the emphasis of learning in the hands of the child, by trusting them to know what they need. This approach to ECE compliments the educational values of the community of Pond Inlet as it builds confidence and independence at a critical age of development. Maria Montessori's

observations taught her that children learn best with quality hands-on materials that help them with real life skills, instead of using toys. We applied this key ingredient of providing quality learning materials while building our own program in Pond Inlet.

The Pilimmaksarniq - Montessori approach allows each child to develop at her own rate, provides children with opportunities to initiate their own learning, fosters the value of concentration in activities that are engaging for children, and guides the children to respect others and the objects in their environment. In our carefully planned environment, children are given the freedom to access the learning materials once the materials have been presented to them. This helps children to become innovative and resourceful. Our cultural activities help to foster strong connections between school, home and their lives in the community as children benefit by having their culture validated and celebrated within the early years of their education. For example, children have the opportunity to practice tying loads onto qamutik, scape skins with ulus, and using irniq vik to stretch and dry seal skins. These are things children would commonly see in their homes and helps to make the connection between school and home.



This method provides the learner with the power and control over their own education. This approach, within the early years of education, is decolonizing education, and it can cause a certain level of discomfort within existing traditional educational institutions, since it puts the needs of the child first, rather than being instructor centric. It is about providing the community with the power, and tools, needed to connect with Inuit Qaujimajatuqangit, and to allow Montessori, be it wooden materials, environmental or structural spaces, to help us to enhance that existing knowledge in the community and to bring it to the forefront of what is important and what is valued. We hope to bring it out of children, and into the community, so we may continue to move forward with reconciliation.

In September 2017, the Government of Canada and the Government of Nunavut signed a bilateral agreement on early learning and childcare. The Government of Canada is making significant investments in early learning and childcare systems to improve the lives of Canadian children and their families. However, in Nunavut we are continuing to struggle with building culturally relevant early learning and childcare systems. Aluki

Kotierk, president of Nunavut Tunngavik Inc, initiated a study entitled 'Indigenous children's education as linguistic genocide and a crime against humanity' in 2018. This report assessed Nunavut's education system as constituting a crime against humanity as it continues the colonial process of cultural and linguistic genocide. The Declaration of Indigenous Rights (UN, 2007) affirmed that Indigenous peoples have the international human right to establish and control their institutions, educational systems and provide education in their own languages in a manner appropriate to their cultural methods of teaching and learning (Article 14).

The power and privilege imbalance among our existing educational structures is strongly apparent in Inuit communities. I am a visitor and settler on Inuit land. My experiences as a teacher in Kimmirut and in Pond Inlet made my power and privilege imbalance apparent from the first day my husband and I landed in Nunavut. The Nunavut context demands that children have a strong foundation in their cultural identity and language in order to increase their sense of confidence and identity in order to become resilient and proficient students. How could I start to support children in laying a strong foundation in their cultural identity and language when I



had no understanding upon how to ground my position as a teacher from outside the community, and have to unpack my own white privilege. That is when I met Karen Nutarak, a strong community leader in Pond Inlet, who had, at an early age led the District Education Authority (DEA) in the community. She helped me to understand what is needed in the community, and what could be done about it. She spoke about the devastating impact of some of the unethical methods used at the local community daycare, and how she had to remove her child from the daycare as a result. It was in these conversations that we began discussing the need for a strong early childhood education program that highlights and values Inuit Qaujimajatuqangit, and that fosters community care. Karen wanted to build a preschool to "heal the pain that people felt when education was first brought to the Inuit. It's going to be the foundation for children to take education seriously. To succeed."

We got together with a few parents in the community who were also supportive of this idea, and created the preschool parent board, in order to get the conversations started at the community level. Once the parent group had outlined what values that were most important, we approached the DEA (of which Karen was no longer the Chair), and we talked about how Inuit Qaujimajatuqangit could be used, and be central in an early childhood educational program outside the community, and how to unpack my own white privilege?

We talked about highlighting Inuit social values, Inuit cultural skills, and making that central to our program. We talked about how we can make all of the wonderful tools and cultural items we have in the community, and make them a little smaller, so they are accessible to little hands so children can learn how to handle and use them. We wanted to highlight cultural skills such as learning how to tie up a qamutik (a small sled), how to scrape and stretch a seal skin, how to play the Inuit drum, how to play string games, etc. We grounded our priorities in these skills, and in Inuit ways of being.

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We wanted children to learn Inuit cultural expectations by practicing common scenarios with children, such as shaking hands. When children enter the preschool room, the educators welcome them with a handshake. This is a common greeting in Pond Inlet. It is an Inuit custom to shake hands when greeting others casually around the community, and even out on the land. Even on the coldest days, when hunters greet one another while hunting, they will remove their mitts, and shake one another's bare hand as a sign of respect. So, we utilize the importance of this social grace in our preschool, as does Montessori. The educators greet each individual child at the door by bending their legs, meeting the child at their eye level, and with a smile welcomes them into the classroom with a handshake. This, could be said, is exactly what Montessori is. But this, is what Inuit Qaujimajatuqangit is in Pond Inlet. We grounded it in our program and it is central to what we have created.

We had on-going discussions with the DEA over the next few years about the variety of things we could do in our program as discussions were growing around the excitement of what this could look like in Pond Inlet. When we spoke with elders at the DEA meetings, one Elder said, "That's what we do. That is Inuit Qaujimajatuqangit. That is our ways of being."

In these initial DEA meetings, we spoke about how Montessori learning tools (such as the wooden materials developed by Maria Montessori) recognize the developmental achievements of each child, through careful, systematic observation, which is similar to the Inuit Qaujimajatuqangit framework. Children are allowed to learn at their own pace, and choose the topics that interest them, which hold their attention and captivate their imaginations. As with the Inuit Qaujimajatuqangit philosophy, the Montessori system also believes that children have a natural inner guidance, which allows for self-directed development with the appropriate support in the classroom.

Maria Montessori observed how a child learns, explores, and manifests learning and growth. Communities all around the world are already doing Montessori and have been for a very long time. Learning that is based on the needs of the child in what is needed. In Pond Inlet, learning that is based on the needs of the child is central to Inuit Qaujimajatuqangit and it provides the foundation for learning that is deeply meaningful. It is now that we need to learn from knowledge holders in communities, where knowledge is locally specific and culturally relevant. As Margo Greenwood states, “It is time for Canadian government and society to recognize that other knowledge systems and cultures pre-exist the Western knowledge(s)” and that the “current relationships between Indigenous and non-Indigenous peoples must be transformed [...] at all levels of governance, administration and implementation, for all ages and at all times. [...] It is our collective responsibility to engage this time of change and opportunity in Canada, to change today and to set the foundation for tomorrow”.



When Inuit Qaujimajatuqangit is naturalized in educational programs, the learning spirit is nurtured and animated, and the process of decolonization begins in individuals, in their communities, and in institutions, leading to transformation and change. We need to learn, to listen, and to listen well, on how it could be done specifically with regard to each community. As we develop programming with individual communities, its success

will be based on learning, listening and listening well to each and every communities' needs and celebrating that cultural knowledge, by repositioning Indigenous cultures and languages as vital to any educational program, and finding ways to support these revitalizations. We have a shared responsibility for reconciliation through solidarity and making a commitment to act on the Truth and Reconciliation Commission's Calls to Action and by doing it together. When we build upon existing community-based, cultural education that works for individual regions, individual communities, and individual neighbourhoods, we begin the process of decolonizing education as we move toward reconciliation, and it begins and ends with listening.

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PRACTICAL LIFE AS A MODEL FOR CONNECTING THE CHILD TO HIS WORLD



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PRACTICAL LIFE AS A MODEL FOR CONNECTING THE CHILD TO HIS WORLD

By Junnifa Uzodike

Using examples from the Fruitful Orchard School in Abuja, Nigeria, Junnifa Uzodike reminds us of the special power of practical life activities to connect the young child to the world. Engagement with work that is in service to others, that tends to the natural world, and that attends to the needs of the self prepares the child to be an independent individual who moves confidently within the world, yet whose sense of gratitude for the gifts of history and the natural world moves them to act with conscientious intention and be an agent for peace.

Dr. Montessori saw education as a preparation for life in the world. She envisioned it as something that supported the development of the child without interfering with its natural process, thus allowing the child to develop to full potential. The result of this kind of education not only benefited the child, but the world. It gave hope for a better future and led to “the emergence of the New Man, who will no longer be the victim of events but, thanks to his clarity of vision, will become able to direct and to mold the future of mankind.” (*The Absorbent Mind*, p. 8)

The world, simply defined, is the earth and all of its living and nonliving components including people, places, plants, animals, etc. Dr. Montessori saw education as a preparation for the child’s life in his world. Preparing the child for the world means preparing him to interact positively and productively with all the elements of the world he needs to understand these elements and be aware of the interconnectedness. While all the aspects of a Montessori classroom prepare the child for this, I have found that in my classroom, the exercises of practical life particularly give the child an understanding not only of the world around him, but also the effect that he can have on it. In the article, I share some examples of the exercises in our community and my observation of the ways in which it connects the child to the world.

Uma Ramani notes,
“It is through practical life that individuals find their place in the human narrative.”

Uma Ramani notes, “It is through practical life that individuals find their place in the human narrative. The activities of practical life give us orientation, identity, and a sense of belonging; they give us purpose and context to our lives as individuals. Education that is a preparation for life is meaningless without the context of practical life.”

Practical life activities are the first set of activities the child experiences in the Montessori classrooms. They give the child opportunities to practice the skills required for

daily life. In the beginning, the child does these activities to develop himself and gain associated skills. However, they eventually become a way for the child to act on and contribute to the world around him. They provide opportunities for the child to apply knowledge garnered from other areas as well as an anchor for new vocabulary and experiences.

There are four broad categories of exercises of practical life:

- **Care of Self Activities** - blowing his nose, washing his hands, learning how to work with fastening that he might find on his clothes or his shoes, polishing his shoes, etc. These activities all provide opportunities for purposeful movement and independence.
 - **Care of Others Activities** - snack preparation, washing a friend's shoes, setting up for lunch.
 - **Care of the Environment** - sweeping, wiping a table, washing a table, watering plants, washing plant leaves, etc.
 - **Grace and Courtesy** - greetings, expressing thanks, expressing disappointment.
- However, the specific exercises I will be looking at span multiple categories.

Food Preparation

In our school, all meals are shared. The children are responsible for preparing snacks and dessert. We eat lunch family-style daily, and the children are responsible for setting up and cleaning up the tables.

Young two and a half to three year olds in our children's house often start the day peeling eggs for the community's snack. This multi-step process requires the child to peel the eggs and slice them. Once, while presenting the geometric solids to a child, she noted that the ovoid was "just like the egg she peeled this morning and the egg she eats at home." Another child noticed that an ovoid is made up of many different circles. Our other food prep activities include peeling and slicing fruits and vegetables like apples, watermelons, pineapples, carrots, and cucumbers. Each one provides sensorial experiences, opportunities to notice geometry in nature, build vocabulary, and notice fractions. Preparing snack also shows the child in a concrete way how to share or how a little can go a long way. There are twenty-five children in our community and we might have 5 eggs for



snack. The child peels and slices those five and it becomes 40 slices which can be shared by the community.

Another key food preparation activity in our school is baking. Baking is a significant part of the daily life in our classroom. There are usually three baking options available to our children. The first is cookie baking. All the materials are pre-measured and set up on a tray on the shelf. Most of the children have memorized the process and can complete it independently. The youngest children can find an older child to help them. They practice asking for help and the older child practices offering help. Both are skills that apply to their current and future lives. The second option is banana bread baking. The materials are on a tray on the shelf, but are not premeasured. An illustrated recipe is provided which the children can follow. Children who cannot read can ask for help and are motivated to learn if only to be able to bake independently. The 2nd and 3rd options are usually completed by older children who have consciously chosen what is often an extended activity, lasting almost two hours including clean up.

The children almost always make math connections while baking. I remember a child coming to me with a worried look on her face. "Ms. Junnifa, the recipe says two teaspoons of baking powder but we only have one teaspoon." Hmmm. How can we get two teaspoons from one? I responded. She thought about it for a moment and her face lit up, "Maybe if we use the 1 teaspoon two times," she said and walked away with her discovery. For an adult, this would be a no brainer but this child who had been working with the addition and multiplication materials in the classroom and knew $1 + 1$ was 2 and that $1 * 2$ was 2 had just made the connection to a real world application. The same scenario happens almost every time a child bakes for the first time or uses a new recipe which might ask for $2/3$ cups or $3/4$ tablespoon. We take the opportunity to visit the fractions and make the connection.

The third option is simply a recipe book which the oldest children can flip through, choose a recipe, and then gather materials needed to follow the recipe. Some of the materials needed might not be available. The child can then choose to make a list and plan a trip to the grocery store. They have to figure out how much the item costs and do the math to figure out how much they need. We also have recipes which require the child to divide the dough into equal parts. The child then uses the golden beads or stamp game to complete the division. These experiences connect the abstract concepts in mathematics to the child's real world.

Often, the materials baked are shared by the community as snack or dessert. They are also sometimes given as gifts. The children have to go through the process without tasting any of the ingredients or the batter. This is an amazing exercise in will for the children, but one that they do without effort. They complete the process knowing they will

have to clean up, bake, and then wait to share the fruits of their efforts with the rest of the community as part of lunch. This ability to delay gratification will serve the child in life and has been found to be a predictor of success. In sharing the goods, the child encounters fractions and other math concepts in a concrete way and also reinforces the idea that one loaf of bread can serve many people when shared. Even though sharing is not forced in our community, it flows naturally from our shared meals to other areas of the classroom with children often willing to find a compromise when faced with conflicts. A skill they will carry with them into adulthood.

After any food preparation whether snack or baking, the children clean up and this includes washing all the utensils and dishes used, sweeping up the table and floors, wiping or scrubbing the table as needed. The child experiences volume, builds vocabulary, notices items that sink or float. More than these, they also practice completing a process and leaving things better than you met them.

Lunch Set-Up

Lunch set up is a multi-step process that starts with the children figuring out how many tables are needed. This involves counting, adding, and sometimes multiplication or division. It is a concrete experience and application of arithmetic that might have been practiced with some of the Montessori materials. The children then work together to move the tables and chairs to the lunch area. Another lesson, this time is collaboration. The children often have to navigate the space and figure out the best path with considerations such as obstacles and distance. Once the tables have been moved, the children then have to figure out which of the table cloths should go on each group of tables. This is practice in estimating area even though they don't yet realize it. They then arrange the chairs, counting often to make sure we have enough and figuring out how many more are needed when necessary. Next the plates, cups, and cutlery are arranged; the children sometimes notice the shapes and keep count to make sure everyone gets a complete set. The cups are then filled, another practice with volume as the child experiences how many cups are filled up with one pitcher, or how you can get water in more cups if you fill them halfway. Once the plate and silverware are set, the children prepare and lay out the napkins.



Every day, we use a variety of cloths in our environment. Some for wiping spills, others as napkins for our meals, others for polishing and so on. Most of the cloths are squares in different colors and sizes. They are washed at the end of each day and then folded the next morning in preparation for use during the day. While they all start out as squares, they are folded differently depending on their use. Lunch napkins are folded into triangles, cleaning cloths are folded into rectangles, polishing clothes are folded into small squares. While folding the napkins, unconsciously and sometimes consciously, the children make connections with some of the Montessori materials: the geometry cabinet which teaches the two dimensional geometric shapes, the constructive triangles which allows the child to experience the different types of triangles in their role as constructor of their shapes, and the fraction insets which allow for exploration for fractions as parts of a whole.

Beyond these academic gains and connections, the child is practicing service to his community and a control of his will. If the children who are responsible do not set up, lunch is delayed so the children start to learn the consequence of one person's action or inaction on their community. The children who set up for lunch do so during outdoor time and so it is truly a giving and sacrifice of one's time.

Woodworking

We have a woodworking shed in our school where children practice woodworking skills and also work on projects. I would like to share a project completed by our children to illustrate how practical life can connect the child to several elements of the child's world. Two children (5 and 6 years old) noticed that our class pet, a chameleon seemed unhappy. They observed it and decided it needed more space to climb and so decided to build a home for our pet chameleon. They came up with the design using the geometric solids, estimated the measurements. They then consulted with our facility manager to confirm their design choices and



get cost estimates for their needs. Once they had confirmed their needs, it was time to take a trip to the market. While an adult accompanied them to the market, it was a practical life exercise as they had to ask for directions on where to find the materials they needed, find out the price, pay, collect and confirm the correct change. Once back to the school, they worked for many days cutting, sanding, and building a house for the chameleon. As I watched them, I caught a glimpse of “the new man” Dr. Montessori describes.

Care of Plants and Gardening

Our classroom has plants of different shapes and sizes which the children are responsible for. They water the plants, clean the leaves, and take them outside on Fridays to allow some direct contact with the sun. The children observe the leaves drying up or turning white when someone forgets to water or take out the plants for a while. In this way, they unconsciously absorb the needs of plants. When they clean the leaves, they notice the different shapes, sizes and textures. If they have already worked with the botany materials - learning the shapes, parts of, and examples of plants - plant work provides an anchor for the new vocabulary and knowledge. If they haven't, caring for the plants can peak their interest and provide motivation for work with the botany materials. With the knowledge gained, they become better observers of the plants around them. They start to observe the signs of need earlier and can thus act to meet the need, and in so doing care for and improve their environment. This observation and interest goes with the child beyond the classroom. She starts to see more in her world outside the classroom. Opportunities to care for plants, animals, and other aspects of the child's environment can be provided to the child at home. Like in the classroom, it should be organized in a way that allows the child to build independence and should also serve as a launchpad for learning more about the objects of his care.

Gardening in our school involves preparing the soil, making ridges, planting, weeding, watering, harvesting, and then preparing the food in the class-



room. The child gets to experience the full lifecycle of vegetables, tubers, legumes, grains and other edible plants. We also have fruit trees which the children observe from flowering until they drop their petals and the pistils start to develop into fruit. They observe as the fruits like guavas, oranges, and lemons mature. They then harvest and process them into juices. Through the real experiences involved in gardening, the children build and apply their strength. They gain real hands-on knowledge of seasons, plants, their parts and life cycles. They also learn about the work of worms, insects, and other animals. It provides motivation for writing, drawing, and counting. They notice patterns, shapes, textures, scents, and tastes. More importantly, they start to truly appreciate the food that they eat and the work it takes to make it. When we sit for lunch, we usually thank the children who set up for lunch, arranged flowers, baked desserts, or in some other ways contributed to our meal. Many times the children have spontaneously thanked the farmer who grew the food or the bee who helped make the honey. This sense of gratitude is a result of direct experiences in gardening. This sense of appreciation for our earth and the knowledge of our ability to work with the natural resources around us both prepare the child to be a custodian of our earth.

Hiking And Other Outdoor Experiences

Every week, we also venture out of our school premises as a group, and hike up and down a hill located next to the school premises. We encounter a variety of land and water forms, plants, animals, and people during our hikes. The children are paired and each member of a pair is responsible for the other. Our grace and courtesy lessons including how to greet people, how to wait, and many others are put into practice during our hikes. The children encounter and overcome obstacles. The terrain is rocky and can be slippery when wet. The children must be aware of their movements and their environment.

The children begin to develop a keen ability to observe. Doctor Montessori talks about developing “eyes that see” and this is most evident during our hikes. The children start to notice the changes in the wider environment such as the changing of leaves on the cashew trees, the budding of leaves on a dry stick left in water for a while. The budding of flowers on a leaf, the first fruits on the cashew tree, the bursting pod of the cotton tree.



They notice and take delight in these seemingly small discoveries and have the language to identify things that they see or ask for names of things that they don't know. This is an experience that can be provided to the child at home. Taking walks and hikes beyond the child's compound expands the child's horizons and allows the child to see and experience more of nature's gifts. Like gardening, it allows the child to fall in love with the natural world. When you love something, you take care of it.

The New Man

Imagine a world where we all notice the people, plants, animals, atmosphere, and just everything around us. Imagine knowing that we can make a difference in the world and that every small difference counts. Imagine having the skills to make those differences. I believe that practical life activities prepare the child to do all of these. They allow the child to think about the world while also equipping him with the skills to be a conscious contributor to his world.



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COMMUNITY BUILDING IN SCHOOLS



Terry N. Ford, a bilingual first grade teacher, opened a school for eight children in response to concerns of neighborhood parents who saw their children falling through the cracks in public school, branded “failures” as early as second grade. Since that day in 1978, she has engaged a wide spectrum of the Dallas community, leveraging private and public funds to develop Lumin Education – a nationally and internationally recognized organization that serves 600 urban, low-income, and immigrant families on three campuses. With its holistic approach that includes parent education beginning in pregnancy, Montessori Early Head Start (pregnancy to age 3) and public charter school classrooms for children ages 3 to 9, Lumin has garnered praise from politicians, civic leaders, and educators for parental involvement, student success rate, and child-centered philosophy. In neighborhoods that struggle with poverty and high dropout rates, Lumin alumni graduate from high school at a rate of 96% with 89% of those graduates attending college.

COMMUNITY BUILDING IN SCHOOLS

by Terry N. Ford

Working in the urban environment of Dallas, Texas, executive director of Lumin Education Terry Ford shows how schools which might normally be competing with each other can support each other instead and forge a community amongst themselves, ultimately serving the families of the area more successfully. Ford highlights using the classroom model of the prepared environment and the core value of grace and courtesy to help build widespread community by fostering a culture of mutual respect, compassion, and love.

This talk was presented at the NAMTA conference titled “Montessori’s Framework: Shaping Education for All Children” in Dallas, Texas on November 8-11, 2018.

How do we build community ... within our schools, between our schools, within this glorious movement, to make Montessori accessible for all children and families? I’d like to share my thoughts by beginning with a story. Like so many of my favorite stories, it begins like this:

Once upon a time, in a land far, far away, there was a big metropolis. This metropolis spread out for hundreds of square miles and was home to hundreds of thousands of people. Now within this metropolis, there were all kinds of schools. In fact, there were all kinds of Montessori schools: private, public, charter schools, nonprofit, schools run by businesses, ... And all of these Montessori schools were vying for children to come to their schools and for the best teachers to be hired by their schools and for the best Montessorians to come lead their schools.

At the same time that all these Montessori schools were vying and competing with each other, because they were full of Montessorians, they found ways to reach out and build community between their schools.

An example of this was two years ago, when the big metropolitan school district – a huge district with 150,000 students – reached out to a much smaller charter public school and asked, “We’re going to have a back-to-school, professional development, two-day conference for all of the Montessori teachers in our district. Would you provide our keynote speech?”

In the same way that the big city school district had reached across that divide between district public schools and charter public schools with this invitation to speak, the charter Montessori school used that keynote speech to take another step in building

community. The title of that speech was “Montessori in Dallas for Children of Diverse Backgrounds”.

That keynote speech started like this:

Once upon a time, a long, long time ago ... in fact, in 1937, a little girl was born whose destiny was to become a Montessori teacher and school leader in Dallas, Texas ... a pioneer in sharing Montessori with children of all backgrounds. Her name was Sherley Johnson.

Sherley’s mom was 15 years old when Sherley was born at Parkland Public Hospital. Sherley was raised her whole life by her granny, growing up in the Love Field Airport neighborhood, which was an unincorporated area of Dallas at that time. As a child, Sherley could stand at the end of her street with the other neighborhood kids and wave at the pilots as they flew overhead ... and the pilots would wave back!

Sherley told me, “Each Sunday, my granny would pack a sack lunch, put me in the wagon and pull me up the long hill to the church. We spent all day at the church. There was always a morning service and an afternoon service. My granny was a heavy-set lady, so rather than go back down the hill home, and then come back to church, we would stay, just like so many of the families. We would all gather and enjoy lunches together.”



When Sherley was 14 years old, her best friend introduced her to a 17-year-old man who had quit school and joined the military. They met when he was on furlough. When he left to go back to the Korean War, she began writing him. Her granny would read every letter! And she warned Sherley, “This young man was not born in our neighborhood!” He was a “town boy”. You have to watch those “town boys”!

Sherley didn’t see Kurt again until 1955, the year she graduated from high school, but they had been writing all those years. They got married in December 1955 and Sherley Johnson became Sherley Collier. It was years later, when Sherley and Kurt had three children and Sherley was working at Little Dude’s Preschool, that she first heard about Montessori.

Sherley ended up going to work for The Creative Learning Center, whose mission was to educate children from poverty families who were considered to be Talented and Gifted. Sherley became a Montessori teacher and eventually the director of the entire school. That school, which opened in 1968, was the first time in Dallas that Montessori was available to children whose families could not afford to pay tuition.

Meanwhile, when Sherley was just 5 yrs old, a little girl named Dina Jaramillo was born in 1942 in Belen, New Mexico. Dina's family's first language was Spanish. Her father always told her, "La educación abre puertas". Education opens doors. After attending Catholic school through eighth grade, Dina convinced her father to send her to a boarding school called Marywood Academy in Grand Rapids, Michigan – a long, long way from Belen, New Mexico.



There was a small cottage near Marywood Academy. It was Montessori school for young children. As a senior in high school, Dina volunteered at this little Montessori school. She eventually got her master's in education and fell in love with Jim Paulik who had opened a Montessori school for Cheyenne Native Americans in Montana.

Dina and Jim got married in 1971 in Dallas and Dina Jaramillo became Dina Paulik. Jim started a Montessori teacher training center in Dallas. Dina became a Montessori teacher and both of them became leaders in the first Montessori programs to be opened by the Dallas public schools.

Initially in 1973, Dina got her principal's permission to unofficially create a Montessori classroom at Sam Houston Elementary. 1973 was the first time that Montessori was available in a Dallas public school. Then in 1976, Jim was hired to open Dallas' first Montessori magnet school. 1976 was the first time that any parent in Dallas could apply for their child to attend a free, public Montessori magnet school. That program eventually grew to serve kindergarten through eighth grades.



Meanwhile, back in 1952, when Dina Jaramillo was just 10 years old in Belen, New Mexico and Sherley Johnson was attending high school in Dallas, Texas, a little girl was born in Prairie Village, Kansas. I was the first of four children. My big hero growing up was Martin Luther King, Jr. and remember sitting in the evenings with my brothers, my sister, and parents,

watching our black and white TV as the civil rights movement unfolded. I saw the sit-ins and the protest marches. I was captivated by this struggle for justice and determined to take some action to be part of this righteous cause. Finally one evening, I told my parents, “Mom and Dad, I’m going to Alabama. I’m going to march with Martin Luther King!” My parents looked at me and said, “Terry, you are 9 years old. You are not going anywhere.”

A few years later I decided that I could do my part by becoming a first grade teacher in a big urban school district. While I was in college at SMU, Barbara Gordon, director of a private Montessori school that is now called Alcuin School, welcomed me as an observer in a Montessori classroom.

I was fascinated ... but when I realized that Montessori was just for children whose parents could afford to pay tuition, I gave up the idea of getting Montessori training and focused on my first job out of college – being a first grade, bilingual teacher at Mount Auburn Elementary in the Dallas public schools. I loved teaching first grade except for one thing - as children moved into the upper grades, I saw so many bright, intelligent, eager-to-learn students begin to get discouraged and fall between the cracks.

So, a group of parents and another teacher and I decided to start a school. It was that in 1978, Lumin Education (then East Dallas Community School), made it possible for the first time for 3- and 4-year-olds from low-income families in Dallas to apply to a Montessori school without screening for academic ability.

Later in 1991, Lumin opened a Pregnancy to Age 3 program, with parent education home visits and a toddler class. In 1999, Lumin opened the first Montessori charter public school in Dallas. Ten years later in 2009, we opened the first Montessori Early Head Start program in Dallas.



Lumin has grown to do primarily two things: 1)We make Montessori home visits. At Lumin full time parent educators, ideally beginning when parents are pregnant, make weekly or every-other-week home visits, working to support parents in creating inspiring learning environments at home. 2)We provide daily Montessori classes beginning with toddlers at age 1 through lower elementary, age 9.

Back to our story ... Where are we now? Sherley has retired. Her legacy lives on through the thousands of lives that she touched in her lifetime. Plus, one of her daughters, Kecia, has been a Montessori educator at Lumin for 25 years. Dina and Jim eventually left

the Dallas public schools to open a private school and are currently continuing to train teachers. And Terry is standing in front of you this morning.

Building Community Between Types Of Montessori Schools

Sherley, Dina, and I represent a microcosm of the different types of Montessori schools often found in urban areas: Sherley led a private Montessori school; Dina taught in a district public Montessori school; and I'm part of a charter public Montessori school. The point is this: of course, in some ways, Montessori schools compete with each other. At the same time, because of who we are and our vision for a world of peace and harmony, we find ways to reach out and build community between our schools and within our schools.

Just as the Dallas public school district reached out to Lumin Education for their professional development conference, Lumin has reached out to principals with district Montessori schools near our campuses and created opportunities for their new Montessori teachers to observe and interact with experienced Montessorians. When the Texas legislature was considering legislation that would be detrimental to Montessori, a group of Montessori school leaders from across the state – public and private, AMI and AMS – gathered to testify to the State Board of Education.

Building Community For Children

Within each of our schools, building community begins in the classroom. How is building community in the classroom important for an individual child? Children learn when they feel safe. Humans and other animals survive because we are constantly – even at this very moment – scanning the environment for risk and reward. It's an unconscious process. If you hear a sudden loud sound, you'll react instinctively to make sure that you're safe.



That sense of safety and belonging in the classroom, being part of a community, is the foundation for learning. Our brains are wired to be looking for things that bring life, nurturing, and safety. If you feel threatened, you're not in a position to focus on learning. On the other hand, food, shelter, companionship, social connection – those are basic needs of every human being. If someone in my classroom acts friendly, I have a positive social response, especially if I am in need of a friend or in need of guidance.

All of us look for ways to create that atmosphere, not only in the classroom, but campus-wide. We want children to hear the message: “You belong in this school community. This is a safe place where people care about you.”

One of the ways that we do that at Lumin is with a school-wide tradition at the beginning of each year. With all the children gathered around, I share a question-and-response, interactive story of how the school got started. It’s the same story every year, so by the time children are 8- or 9-years-old, they know it by heart. The repetitive theme is of how hard the parents and teachers work to create the school, emphasizing school values of children working and treating each other with respect and kindness. Of course, it’s the ongoing Montessori practices of grace and courtesy and modeling respectful behavior that have the greatest impact on how children respect, work, and play with each other.

Building Community School-Wide

We all know that it’s important for our children to have a sense of safety, belonging, and community in our classrooms. But why do we need to build community school-wide? Picture someone in your school community who is struggling with some challenge at work. When you try to reach out to that person...Do they react defensively? Or with openness? Their reaction depends on how safe they feel, how far they can trust that you really believe in them, how much community support they feel.

How do we build community in the midst of the pressures and challenges that each of us faces in our day-to-day life ...

- When families are struggling with the effects of poverty and the isolation that can come from feeling so alone in facing the financial and health and housing and so many other problems that arise?
- When our staff are struggling – not only with children who may not have had enough to eat or who may have witnessed violence outside their door – but also with the external pressures of getting good test scores, unfunded mandates, and compliance regulations?
- Or at more affluent schools, when some of our students come from such entitled backgrounds that they or their parents believe that they can do no wrong?

At the same time ... This is the work we choose to do, right? It’s the field that we choose to play in.

I suggest that there are three ways to build community and that they all boil down to a very familiar

I suggest that there are **three ways** to build community and that they all boil down to a very familiar Montessori concept: the prepared environment.

Montessori concept: the prepared environment. Knowing that the key to learning - for children, parents, and staff - is feeling safe and that being safe means being surrounded by a community of respect, compassion, and love, then the way to be a learning community where all of us learn from each other is to create a prepared environment. This work is an ongoing process, a never-ending effort to create and maintain that environment.

Building Community Through A Prepared Environment - Three Ways:

1. Practice how we interact with each other
2. Create opportunities for shared experiences
3. Create opportunities for personal and professional growth

I. PRACTICE HOW WE INTERACT WITH EACH OTHER

A. Use responsible language

Open, honest, and direct communication

A parent came to me last week with a complaint about her child's classroom. At Lumin we practice talking to each other, rather than about each other. Before I respond to a complaint, I ask myself:

Have I encouraged the person to go directly to the other person?
Did I coach them and support them in how to do that?

Reflective listening

Seek to understand the speaker's idea. Then offer the idea back to the speaker, to confirm that you understood correctly. Focus on understanding first, before seeking to be understood. This is an opportunity for each person to truly hear one another, to end the conversation with each person feeling heard and understood, not necessarily agreed with. This requires being a good listener by listening without trying to be thinking of a response.

Own messages that you send to others

Talk from the perspective of "I": I think ...I feel ...I imagine ...I'm under the impression that...You are the expert on what you think and how you feel. Avoid arguing from the

perspective of “You”. You think ...You feel ...You always ...You never ...This approach puts others on the defensive.

Use language that takes responsibility

- “I” instead of “you”
- “I want” instead of “I need”
- “I choose to” instead of “I should”
- “I choose not to” instead of “I shouldn’t”
- “I won’t” instead of “I can’t”

B. Notice and Acknowledge

Get Curious.

I worked in a school in a traditional setting years ago and was asked to translate at a parent teacher conference for a parent who didn’t speak English. The teacher’s message to the parent was, “Your child is failing because you don’t speak English to him.” How different might that parent’s response been if the teacher had said, “You know your child better than anyone else. I’d like your help to figure out how to reach him. What does he get excited about? What does he enjoy?”

Use Gratitude

For example, children decorate gratitude jars. During the course of the year, each child writes something that s/he is grateful for and drops it into his or her jar. Near Thanksgiving (or whatever day you designate), read the notes.

Assume Good Intent

Many years ago, in preparation for tutoring a child, I visited with his grandmother. “Whup him!” she told me. “Whup him ‘til his bones break if you have to, but learn him. Learn him good.” That grandmother cared



deeply about her grandson. By recognizing good intent, we can build on what we have in common.

When something goes missing, trust the child who has a pattern of stealing until you know for sure what happened. Get curious when you find the missing shoe in the child's cubby.

All of the above are simple concepts, but not easy to practice consistently. Practicing these practices builds community.

II. CREATE OPPORTUNITIES FOR SHARED EXPERIENCES

Build on strengths

Look for opportunities to invite children, parents, staff, and alumni to share their gifts, talents, and interests. At one of Lumin's 40th anniversary celebrations, we invited a gifted alumni pianist to perform. At our beginning of year celebration, we invite staff to tell true Lumin stories that illustrate our values.

Have fun

Having fun is just as important as sharing information. Our parents' feedback is, "We want more time to talk to each other. We want a stronger foundation of friends." Sometimes our parent evenings are Mom and Dad's one night out together. We provide child-care and dinner, so Mom and Dad are fed, their kids are fed, and the only cost to Mom and Dad is the gas to get there.

Out of the Box

Out of the Box is when staff are invited to get out of their office and help out in the classroom. Our head of fund-raising told me, "Few experiences at Lumin were more transformative for me than the week I spent as a substitute assistant in a primary class. I was so proudly exhausted after lunch every day and so impressed with the teacher and assistant—their patience, their knowledge, their ability to think on their feet, their enormous responsibility!"

III. CREATE OPPORTUNITIES FOR PERSONAL AND PROFESSIONAL GROWTH

Grow Your Own

One of our most effective strategies for finding great staff is to provide opportunities to people within our own community (parents, staff, alumni) who have interests and strengths that match our needs. For example, two of our school directors started at Lumin as parents, then became parent educators, then teachers, and then directors. We also partner with other organizations (for example, community organizers and our state charter association) to train our parents to advocate for issues they care about.

Personal Development

Look for opportunities to remind parents and staff that we want them to take good care of themselves. For example, create time for a yoga class, a mindfulness workshop, a walk in the park. One of the greatest gifts we ever received was when a church donated weekly sessions of a family counselor to Lumin. Now, thanks to partially donated services, we are able to offer play therapy for children, family counseling to parents, and leadership coaching to staff.

CONCLUSION

Knowing that we want our political climate to be less polarized, the place to start is where we have influence. Each of us has a sphere of influence within our family, at our place of work, in our neighborhood, and/or in our place of worship. Whether we are part of a private Montessori school, a charter public Montessori school, a district public school Montessori school, or part of the larger community ... Whether we are part of AMI, AMS, or some other approach to Montessori training ... we all have common ground.

We care about the quality and effectiveness of our work. We care about expanding access to beautiful learning environments for children, regardless of race, religion, language, legal documentation of citizenship, or income. We are all about educating the children of the world.

Montessorians envision a world of peace and harmony. We create that world in our everyday interactions in our classrooms, in our schools, between schools and organizations and at conferences like this one.

MONTESSORI'S VISION: A GUIDE TO SUPPORTING HUMAN DEVELOPMENT IN THE DIGITAL AGE



Elise Huneke-Stone is the Director of AMI Elementary Training at Montessori Northwest in Portland, Oregon, and Spokane, Washington. She holds primary and elementary diplomas, has decades of classroom experience guiding elementary and adolescent communities, and counts crows, clouds, maples, oaks, cats, sunflowers, and primates among her daily companions.

MONTESSORI'S VISION: A GUIDE TO SUPPORTING HUMAN DEVELOPMENT IN THE DIGITAL AGE

by Elise Huneke-Stone

The developing human being creates a narrative capacity at each stage of development. Elise Huneke-Stone highlights the role of the human tendencies and the fundamental characteristics of childhood and adolescence for self-construction, as she explores the ways in which an increasingly digital environment affects this process. She reminds us that children become what they experience, and offering developmentally appropriate experiences in the digital world - at the right time - helps those children and adolescents adapt to their culture and tell their own story.

This talk was originally presented at the NAMTA Conference titled "Montessori Guidance for Adapting to the Global-Digital Culture" in Tacoma, Washington on April 4-7, 2019.

Thank you for inviting me to offer an introduction to this NAMTA conference: Montessori's Vision: A Guide to Supporting Human Development in a Digital Age. My work today is to help us all view the digital age through the lens of the Montessori principles that guide us. One of those Montessori principles is that we offer experience before language, that before we name or discuss or analyze something, we first have an experience of that which we hope to discuss. So we're going to have a sensorial social experience together first: We're going to sing.

The song is called, "Come Let Us Gather," a traditional hymnal adapted for children.

*Come, let us gather now to sing
Sing from your heart, great joy to bring.
Body, mind, spirit, voice: Come, let's sing.*

So what we just did there, coordinating our breath and our movement, enacting many great and profound agreements about what words we would say when, and how fast to vibrate our vocal cords to make the beautiful sounds we made with our lips and lungs and throats and tongues and the air in this room, this room that was built by people we don't even know so that gatherings like this could occur: What we just did here, in singing that song together, symbolizes the potential of community for me.

And some of you might have been thinking, wow, she's not leading with her strong suit here, singing into a mike at 9:00 am on a Friday morning! And some of you might

have been thinking, hey, who does she think she is, making us follow her directions? I don't want to sing in public! I don't even know this song. And some of you might have been thinking, That woman looks tired...I'm tired too... And some of you might have been thinking, when's the break? And some of you might have been preoccupied with thoughts entirely your own, not connected to me or to the activity I was leading.

And all of you, no matter what your circumstances, acted like part of a community. All of have chosen to be here (and that choice, that consent, is significant in how you experience what happens to you). All of you are here to seek inspiration or affirmation or the opportunity to learn, and all of you also chose not to say anything about what you were thinking, or feeling, when we sang that song together. Nobody heckled me, nobody booed or catcalled, nobody walked out, nobody even winced or cringed or made a sign of discomfort. You all self-regulated, a welcome act of will and grace and courtesy. For which I am grateful. Thank you. It is what I expected of you; it was the trust I had in you as my audience, and the trust you had in me as a presenter, it was a social contract which you honored, it was community, it was civility.

But not everyone experienced the song the same way. Some of you maybe felt it differently. Some of you engaged in the musical moment - body, mind, and spirit - and then you gave it voice. And what we did together you experienced as a joyful noise, a way of being with each other that feels good. And what does it mean when something feels good? It's hard to explain, and our linking verb "feels" really doesn't give us a definition of what's happening for us, except that we know it when we feel it, and when we feel good, we feel it in body, mind, and spirit.

And for those of you who felt good singing: You sang the words I sang and maybe you thought about what they mean, what they mean for children and adolescents, or what they mean for us as Montessori practitioners. Or maybe your pleasure was sensorial, because you liked the way we sounded together. Maybe for some of you, the readers out there, it was when you read the words that you felt a sense of community. Using the neural circuits you've adapted for reading, those capacities in your brains which developed over the million years that your ancestors spent outside doing things other than reading, you read the words while singing them. You looked at those sound symbols in Helvetica up there on the screen, and you heard the human power and sweetness of our hundred voices, and you felt it. Maybe it was a feeling of connection. Maybe it was a feeling of wholeness. Maybe it was a feeling of love. Maybe it was a feeling for which you don't have any words.

You know, recently I read something in an article on the internet that reminds me of what just happened for some of you...the article was called "The Neuroscience of Singing," and in it were claims about how singing is good for us, body, mind and spirit,

and that singing in a group was especially important. The article stated, “The good feelings we get from singing in a group are a kind of evolutionary reward for coming together cooperatively.”

And I recognized some Montessori principles in the article, just as we can find Montessori principles in many places where people are writing about human development with an understanding built on observation, love, and common sense. But then I did something that many of us do on the internet: I looked at the comments to the article. I wanted to see what other people think, I wanted to engage in a dialogue. And what I found in the comments were some people were trashing the article, just tearing it apart in the way that some people do when they are anonymous in cyberspace and they forget their basic grace and courtesy. And others were saying there was no evidence, no data, to back up the assertions made. Now this is an aside, but I think it’s a significant one to our discussion of how we will use Montessori principles to guide children and adolescents in the digital age.

So let me tell you what happened. The very act of using the resources of the internet to prepare this keynote heightened my awareness as to how children and adolescents might experience the internet. There I was on my laptop, where I spend part of every day, and I’m reading about neuroscience and singing, and thinking about this conference, Montessori Guidance for a Digital Age. I was thinking about how I would start with a song and started looking for data to back up my feelings that singing together is good for us. I found the article I quoted, and then read the comments about the lack of evidence to back up the claims, and I noticed a hyperlink in the article that said “some studies” have shown that this to be true. But when I clicked on the link to view the studies, I got a full-screen message: 404, page not found.

And I have to tell you, it stopped the flow of learning that I had had up until then, reading and researching and brainstorming and being creative, planning this keynote. It was really disappointing, like a door I expected to open was in fact locked. And it made the rest of the information in the article feel unreliable, like the evidence for its existence was intangible. And perhaps most significantly, I went into a spiral of doubt about whether or not I should include the slide at all. It made me doubt myself. For a split second, because of a broken hyperlink, I felt insecure about what I was going to be saying to you today. Now obviously I recovered, and here I am, and here you are. But if this split second of insecurity could happen to me, an AMI elementary trainer, a happy, privileged, well-educated experienced NAMTA presenter, someone who has been doing research on the internet since the internet was invented, then what might happen for someone less experienced? What might happen for someone whose identity is not yet fully formed, or someone who is new to internet research, or someone who has more at stake than I did when I got the 404 message?

The truth is, we don't really know. We don't know yet - how adult experiences in the digital age compare to children's and adolescents' experiences in the digital age. But just because the Internet wasn't invented back when Dr. Montessori was observing children and experimenting with conditions that supported optimal development doesn't mean that we don't have Montessori principles to guide us. We can find support for navigating the digital age into which our children were born in the Montessori principles that have guided us for the past century. We will find guidance in our understanding of human development and our understanding of prepared environments for learning and independence. We recognize that our children and adolescents can and will adapt to this digital age by enacting the human tendencies and manifesting the characteristics of each stage of growth. This conference is meant to encourage us to keep looking back at our core principles even while looking forward to the children's future, a future changing at an often bewildering rate.

We can find support for navigating the digital age into which our children were born in the Montessori principles that have guided us for the past century. We will find guidance in our understanding of human development and our understanding of prepared environments for learning and independence.

So back to those of you who felt something positive and pro-social happened when we sang together. If you were part of this group, you also regulated your behavior and response. You consented. You too chose to be here and chose to harmonize your body, mind, spirit and voice to the cultural norm of Montessorians singing together to start a gathering. You adapted. You didn't leap up and exalt the feelings you were having, you didn't rush the stage and demand a solo, or start singing a different song. You didn't run out and climb a tree or seek a mate or fall in love or take your clothes off or try to prolong the fleeting ecstasy. You showed such restraint! You didn't even take a selfie. #singingatthemontessoriconference.

And I thank you too, for having fully-developed frontal lobes and calm amygdalas and nice manners. I thank you for your act of will and respect.

But what if this experience had happened in a different way, in a different environment? What if I were experiencing this as an act of self-expression sharing my thoughts and feelings and vulnerabilities by singing solo, and what if I had posted it on-line, put it on you-tube, a video of me singing. What might have happened?

And what if I were 13 years old?

And what if I were reading the comments, good and bad, polite and rude, complimentary and cussing me out, comments from peers and possibly strangers, and possibly predators, alone in my room at midnight on my smart phone? And what if I had no one to help me process this experience? And it isn't going to be as simple as, "Don't let kids use the internet," or "Don't let teenagers have phones in their rooms." We have to consider the digital age as the children's future, to which they will adapt. We have to consider the evolving needs and tendencies of the children in preparing our digital environments, just as we consider the needs and tendencies of the children in planning our classroom environments.

Dr. Maria Montessori's principles and philosophy and traditions and institutions have guided me in my life as a human being since I was 19 years old and saw my first Montessori elementary classroom. What impressed me most in my first vision of Dr. Montessori's vision, which was love at first sight for me, were three things: That the children had freedom to move, and that the children had freedom to speak, and that adults had respect for children.

Throughout my life, while I attended Montessori workshops, took Montessori trainings, became friends and partners with other Montessori practitioners, guided Montessori elementary and adolescent communities, mothered Montessori children, trained Montessori teachers, I have found guidance in Montessori's discovery of the nature of the child and insights into how we can best guide them.

Which brings us here to today and this conference and keynote: What guidance does Montessori give us in the digital age? Throughout this conference, in keynotes and breakouts, with Montessori teachers and trainers and other teachers and storytellers, we're going to explore this digital age and this digital environment (a word which has special meaning for us as Montessorians), and this digital culture, and how we can continue to support optimal human development with Montessori principles.

And here are some of the Montessori principles to consider throughout the conference:

The Human Tendencies

Adaptation

The Prepared Environment

The Developmental Characteristics of the Four Planes (from birth to adulthood)

Developmental Tasks and Independence

Supranature

Grace and Courtesy

Self-Construction and Self-Expression

Story and Storytelling (including the narratives of the autobiographical self, identity)

We will trust that our next keynote speaker, Max Stossel from the Center for Humane Technology, will share more fully what is meant by “technology,” and the digital world. In my case, when I say “technology” I mean two things. First, I mean using the internet or software or screens for research, for learning, for academic or cognitive purposes. And second, I mean using social media and smart phones for connecting to others, for social purposes.

Of course we know that children and adolescents also use screens and technology for entertainment. Where do social purposes stop and entertainment purposes begin? I think every adolescent practitioner wants to know that! And I certainly don’t have all the answers. For efficiency’s sake, let’s remember that our task as Montessorians is to support human development, the physical, cognitive, emotional, and spiritual development of each human being. We are tasked “to educate the human potential,” and to serve the whole child: Body. Mind. Spirit. And Voice, when we consider that voice is not just the sounds we make, but all of an individual’s unique self-expression. So while we’re not going to be able to determine a formula for when and how much and which kinds of technology are best for our children, we are going to be reassured that we will find guidance in the Montessori principles that we rely on in the rest of our work.

Which brings us to the four planes of development. Let’s reference the Constructive Rhythm of Life chart with the 4 triangles. When I first heard the song we sang, about ten years ago, I immediately said, “That’s the four planes!” Of course a human being has a body at each stage of growth, and a mind, and a spirit, and a voice. But in considering the main developmental tasks of each plane, you can see a particular emphasis that does map rather neatly onto the song. In the first plane we have the astonishing physical transformations, born from a single cell into infancy, and through the powers of the absorbent mind, self-constructing into the functionally independent six year olds who can walk, speak, and use their hands. In the second plane we have the elementary children with their minds on fire with Cosmic Education, using imagination and reason to access the whole universe as material for self construction. In the third plane of development, we have the social newborn, the adolescent, emerging into the big questions and choices of the spirit, the potentials of identity and belief and livelihood and philosophy and social organization. And in the fourth plane, you are considered an adult, finishing your education, taking your place among other adults, as a contributor to culture and creator of supranature. You take on your responsibility to prepare the environment for the next generation. You have your voice in the world.

When we as Montessorians speak of the developmental continuum, we are speaking about how human beings adapt at different ages, how they enact their human tendencies. When children and adolescents here today adapt to their environment, that environment includes the digital world, a part of supranature that is increasingly avail-

able for their access and exploration. And of course they adapt to the digital world in developmentally determined ways, bringing their developmental powers to learn about the internet the same way that they learn about everything else. Here's a somewhat comic illustration of this idea that may serve to remind us that we have to always keep those developmental considerations in mind when preparing the digital environment for the children and adolescents we serve.



These are our two daughters. It's Halloween. The older has decided to dress up as a computer with the Y2K bug. You can tell it's 1999 by the way that the technology looks and by what's on our daughter's mind when she considers her costume. She loves computers. The computer she modeled her costume on is the kind she knows from both home and school. She's not worried about the potential Y2K bug, but she's heard of it. She's an elementary kid for sure, expressing herself and her connection to the culture through her imagination and her dress up and her exploration and using a big cardboard box, because so much of the way that 6-12 year olds express their connection to culture seems to involve big cardboard boxes!

And here is another part of the older's costume cleverness: She has asked that her younger sister be dressed up too—as the computer mouse. So here you see the elementary love of puns and playful language; you see that elementary sense of humor.

And what does the younger sister, not yet a year old, experience in this scenario? She too has seen the computer in our home and has seen her sister and her parents interacting with it, but she doesn't know what happens on the computer, or what Halloween is, or what this box represents. She doesn't know what the joke is. Right now she has paper on her head—she doesn't know she's a mouse—and she only has eyes for her beloved but strangely behaving sister.

This picture reminds us that when it comes to the digital world, children are not adults, and their understanding of the world is not an adult understanding of the world. This is so obvious, but we sometimes fail to make this awareness our first priority. We sometimes think that because a six year old can learn keyboarding skills or internet search skills, or a toddler can make the iPad work, that this is what is best for them.

We forget that the digital world is a sensorially limited subset of the real world. We forget, because the digital world is so complex and interesting and convenient for adults, that it's the real world that holds the complexity and interest for human beings in development, for their bodies, minds, and spirits. And we need to remember that as Montessori practitioners, we have a few key responsibilities toward children. First, we love them. Then we observe and base our responses in the data we gather through observation. And we prepare age-appropriate environments in which the children and adolescents can be free to manifest their human tendencies.

We forget that the digital world is a sensorially limited subset of the real world.

It is through the use of the human tendencies that a baby born into a human society can adapt to speak any language, eat any cuisine, wear any kind of clothing, live in any kind of shelter, make any kind of music, worship any god. It is through the use of the human tendencies across the planes of development that we learn to use the tools and technologies of our culture, both the physical tools and the digital ones.

So what is a human tendency? Let's explore that for a bit, because understanding the human tendencies is fundamental to our understanding of the adult role of being in service to the children. Dr. Montessori wrote, in *The Absorbent Mind*,

“...we have found it reasonable to suppose that the children, at birth, bear within them constructive possibilities, which must unfold by activity in their environment ... Yet there exists in these inert beings a global power, a ‘human creative essence,’ which drives

them to form humans of their time, humans of their civilization.” (Montessori, 2004, p. 52-53).

I love how Dr. Montessori describes her work as being reasonable. She was always very practical in her approach to helping other adults discover the true nature of children and their unrecognized potentials. This little paragraph helps us capture so much of Montessori’s thought: the children have the constructive potential, the ability to create themselves, but this potential can only be realized when the child is active in the environment. We find it reasonable to suppose that children today, in the digital age, are still doing this. When I speak to students on training courses about the self-constructive work of the child, I speak of how the child’s tasks are Becoming and Belonging. Children have to become themselves and they have to belong to their people. That’s their work, and it’s really the only thing that matters. Mario Montessori, Jr. expressed it this way: “...while developing themselves they unconsciously develop their own adaptation to their environment. To understand the children’s tendencies with the purpose of educating them, we must see humanity in correlation with our environment and how our adaptation to it is created.”

At each stage of development, the children build themselves out of their environments and experiences (becoming) and they interact with and connect with the others in their social group (belonging). The human tendencies summarize what we do in order to be human, what we do to become and to belong. And we can’t develop, can’t even exist, separate from our environments. And because the digital environment is now such a vital part of supranature, we can’t ignore it. We have to continue to look at how the children and adolescents create their adaptation to their environments.

In the booklet, “Human Tendencies and Montessori Education,” Mario Montessori names a very important tendency (which you may not have had explicitly named in your own Montessori training): the tendency for self-preservation. He wrote,

“...God gave to each individual – of any type of life – as condition for any further development, that first of all it should keep alive! ...This is something many forget. That in humanity, there is not only the spirit. We are body, mind and spirit! In order to reach the utmost height of mental achievements or of spirituality, one still has to heed that part which says, “You are a creature with a body and with bodily needs. And only as long as you respect the rules that will keep your body alive, your mind and your soul will have individual means of expressing themselves.” (Mario Montessori, 1956, p. 26).

I find encouragement in this, that we are on the right track in guiding children in the digital age, by considering body, mind, and spirit, as we will do throughout this conference.

Here's how I first heard about the human tendencies, in my first AMI training, in 1987 at the Washington Montessori Institute with Margaret Stephenson, where we took notes by hand and typed things up later:

"The human tendencies are innate in man. They are the characteristics, the propensities, which allowed the human being, from his first inception on earth, to become aware of his environment, to learn and understand it....Each child, as he is born, enters, as did the very first human being, an environment created for him but unknown to him. If he was to live his life securely within it, he had to have a way of making a knowledge of it. This way was through the human tendencies."

Children still have this developmental work today: They have to make a knowledge of their environment. We adults can guide them, but we can't do the work for them.

So I will now list the human tendencies, and as we cover the list, let's think of our children and adolescents, and let's consider these three framing questions:

1. Have we adults prepared the environments—the real world and the digital world—to support the children and adolescents in enacting their human tendencies?
2. Are their tendencies helping them "to make a knowledge" of their actual and virtual environments?
3. Does this knowledge build their independence and make them feel secure, safe, competent, supported, loved?

Children still have this developmental work today: They have to make a knowledge of their environment. We adults can guide them, but we can't do the work for them.

Because that's what the human tendencies are meant to do: to help them self-construct within this culture, and to help them adapt to this culture. The tendencies are the developmental energies that human beings are born with, and they include:

Self-Preservation

Association with Others

Purposeful Movement, Activity, Work, Manipulation (the work of the hand)

Exploration

Observation

Orientation

Order

Abstraction

Imagination

Repetition, Self-Perfection, Exactness, Control of Error

Communication, Language, Expression

Let's keep these tendencies in mind throughout the conference, because this is how the children and adolescents will do their work in the digital world. And let's keep in mind that how the tendencies manifest in each plane of development gives rise to the characteristics of that plane.

Implicit in this understanding of the human tendencies is that the human being does not self-construct in a vacuum. The process of self-construction happens through the child's interaction with the environment, including the other people in the social unit. When an individual enacts the human tendencies, a personality or self-hood is created. When a social group enacts the human tendencies together to meet the needs of the group, a culture is created. This understanding is at the core of what we do in Montessori education.

For the child in the first six years of life, when the first phase of self-construction is happening, the environment is critically important. Montessori spoke of young children incarnating the environment, literally making themselves out of it. We can also express this idea as children become what they experience. In terms of brain development in particular, contemporary science has proven this to be true. Only those brain connections that are reinforced by experience are kept, as the child "prunes" the neural networks in the brain during the course of early development and again in adolescence. And what determines which experiences the children has, which experiences contribute to the wiring of their brains? The experiences are determined by the operation of the human tendencies within the environment in which those children live.

As the self-construction continues into the next six years of life, the elementary years, Montessori noted that the child's sphere of experience becomes larger and the children are now able to expand their understanding of the world. At this stage of development, the child wants to know the reasons for things, how systems work. We say that the children are using the whole universe as material for their self-construction. The human tendencies are still operating, still directing the child toward the experiences necessary for optimal development.

Even after we reach maturity, the human tendencies are operating. Right now in this room, the tendencies are operating. We are communicating, we are associating with each other, we are ordering our impressions...In Montessori's conception of the human tendencies, we find those behaviors which are ongoing in the lives of all human beings.

The tendencies for communication, imagination, and abstraction are particularly important to consider when we are tasked with guiding children and adolescents in a digital environment. Research about children and adolescents in digital environments takes place largely outside of our Montessori circle, so we have to interpret the evidence in light of the ways that our pedagogical approach differs from the approach in the studies. Outside of Montessori, I have found guidance myself in the work of Maryanne Wolf, who has written a number of inspiring books about contemporary children's literacy. In her most recent book, she quotes Patricia Greenfield:

"Every medium has its strengths and weaknesses; every medium develops some cognitive skills at the expense of others. Although...the Internet may develop impressive visual intelligence, the cost seems to be deep processing: mindful knowledge acquisition, inductive analysis, critical thinking, imagination, and reflection."

These things are too valuable to sacrifice in our children. This does not mean that we need to sacrifice the Internet! What it does mean is that all things should happen at the developmentally right time. It means that deep processing--mindful knowledge acquisition, inductive analysis, critical thinking, imagination, reflection, and even literacy itself—have to form in the real world, just as they always have. All need to be intact before we can offer the digital world as material for the children's self-construction. Because as amazing as the digital environment is, our ancestors evolved and adapted without it, and we are made to evolve and adapt without it. Then we can enter into the digital world in a way that supports optimal human development. Then we can adapt to the digital world, what many of us consider one of the greatest gifts that humanity has ever given ourselves. But we can only participate optimally if we are mature enough, developed enough, to be safe there, and secure there.

This does not mean that we need to sacrifice the Internet! What it does mean is that all things should happen at the developmentally right time.

I have found most of what I needed myself as a Montessorian guiding children and adolescents in the digital age in one section of *Education and Peace*, first published in 1949, in the chapter called "Educate for Peace."

"Education must take advantage of the value of the hidden instincts that guide humanity as we build our own lives. Powerful among these instincts is the social drive. It has been our experience that if the child and the adolescent do not have a chance to engage in a true social life, they do not develop a sense of discipline and morality."

A true social life: To me as a Montessorian, this means a life of body, mind, spirit, and voice, all the aspects of a whole human being, living with other people. We want the children and adolescents, the next global citizens, to have a sense of discipline and morality. But this is not something taught in school. It isn't something that shows up on most academic assessments. It is something learned by engagement in true social life. It is learned by participation in the social life of the family, of the school, of the community, of the country, of the world. Dr. Montessori went on to write:

“...The human personality is shaped by continuous experiences; it is up to us to create for children, for adolescents, for young people, an environment, a world that will readily permit such formative experiences.”

We know how to do that in the prepared environments of our classrooms. Our next step is to figure out how to do that in the digital environment, how to offer children and adolescents the developmentally appropriate experiences at the right times.

“The youngster's personality must come in contact with the world of production after an apprenticeship of experience; humanity must be guided first and foremost toward an awareness of our responsibilities with regard to human social organization. Thus, from early childhood on, human beings must have practical experience of what association is, and only then gradually fathom the secrets of the technical evolution of this society.”

“Today we have an organization of machines. What is needed are human beings capable of using machines to carry out a lofty mission that each of them will be aware of and feel responsible for.”

If you have the opportunity to look at the mission statement of the Center for Humane Technology, you will see that it is essentially the same as this paragraph. This is the work.

“Today we have an organization of machines,” Yes we do. “What is needed are human beings capable of using machines to carry out a



lofty mission.” Yes, that’s what’s needed. That’s what we have to help the children to do. It’s a mission “...that each of them will be aware of and feel responsible for.”

I want to end with a story, because this is also a storytelling conference. It’s a story about trusting children.

This is a picture of a vintage children’s toy, a Fisher-Price cash register. My little brother had one in 1970. I found a used one at a yard sale when my own child was about 18 months old, in the 90s, and I brought it home and sat on the floor with my daughter and with some cans of beans and a box of mac and cheese and a box of crackers, and I explained, “This is a cash register! When we buy our groceries at the store, we put our things on the belt and the cashier rings it up, like this...” I started hitting the buttons. My child is just watching me. And the drawer opened, and the bell rings, and she’s just watching me. I picked up a can and looked at the price tag and punched the buttons. Still, my daughter is just watching me, and I don’t understand why she isn’t playing cash register. The drawer opened again and I said, “Here, this is where the money goes,” and it suddenly occurred to me that maybe she didn’t know what money was, maybe she’d never seen me or her papa pay for groceries with money. And right at that moment, my little child (who had some spoken language but wasn’t fully verbal yet), very kindly and very deliberately, making sure that I was watching, picked up one of the cans, and very slowly moved it across an imaginary sensor, and very clearly articulated, “BEEP.”

And in that one BEEP, so much was communicated. We are in partnership with the children in this act of creating humanity. We adults build supranature, we prepare their environments, we provide their toys and materials and opportunities. We curate the materials for self-construction and offer freedom within limits until they are capable of full independence. And the children self-construct, as they always have. We can trust in that human potential. We can trust the children.

In conclusion: How do we ensure that each of the human beings we guide will be aware of and feel responsible for and know how to use our machines for a lofty mission? By giving to each human being we guide the opportunities to self-construct, to build themselves, to narrate their own stories and their own experiences, in a prepared social environment suited to their human tendencies and developmental characteristics at each stage of life.

We do it by giving to each human being in our care the opportunity to develop body, mind, spirit and voice.

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AN UNLIKELY MONTESSORI CLASSROOM



Catherine DeNardo is a writer and editor based in Seattle. While her children went through the primary and elementary programs at Pacific Crest Montessori School, Catherine edited the school newsletter and became an avid reader of Montessori's work. In 2015, she and her family moved onto the Wakataitea, and spent three years sailing from Brazil to the Bahamas.

AN UNLIKELY MONTESSORI CLASSROOM

by Catherine DeNardo

One parent found inspiration and grounding in Dr. Montessori's teachings as she and her family spent three years on the water. The daily demands of manning a sailboat and navigating around the ocean provided real, meaningful work for this family's two children, serving as an unusual classroom rich in activities of the hand and the head. Catherine DeNardo reflects on how with Montessori's guidance and an open mind, unusual "classrooms" can be found almost anywhere.

When my daughter was nine and my son was ten, my husband and I pulled them out of school and went on an adventure. We rented our house in Seattle, flew to Brazil and moved onto a Polynesian-style 46-foot sailing catamaran - the *Wakataitea*. Our intent was not a radical education for our children. It was simply to spend time together as a family, see the world, and swim in water a little warmer than the Puget Sound. But as we adjusted to living on a boat (and one year turned into three), I discovered that our boat life was rich in the principles and opportunities of a Montessori education.

Both my children started preschool at age three in a Montessori primary program. Thanks to seven years at the school, classroom observations, parent education nights and thought-provoking conversations with the teachers and head of school, I learned the value of Dr. Montessori's pedagogy along with my children.

Onboard it took a while to get the homeschooling part of our adventure right. My son missed his peers and I missed the adults who knew more than me about teaching my children. Much of my and my husband's time was taken up with managing the boat, our provisions, the passages and the seasickness such that we had little time for anything that might resemble 'school.' In fact, often we needed our children's help with something more pressing than 'school.'

During those first few months, I started paying attention to what was working between us and what wasn't. I began to see beyond the math workbooks we had brought with us from home and beyond my fears of them falling behind. Instead, I began to notice a resemblance between boat life and Maria Montessori's concept of 'practical life.'

Take water use, for instance. All our water—for drinking, washing dishes, hand-washing clothes, teeth brushing, boiling pasta, rinsing the salt off our bodies after a swim—either came from rain or had to be collected in six 20-liter jerry cans from a spigot on shore and brought to the boat in the dinghy. Our tanks held a total of 350 liters so we'd

lug the jerry cans to and fro, emptying them one by one three times over. If we were careful, the water lasted about two weeks and then we'd have to do it all over again. This work required many hands. And this was absolutely essential work.

In *From Childhood to Adolescence*, Maria wrote: "Life in the open air, in the sunshine [improves] the physical health, while the calm surroundings, the silence, the wonders of nature satisfy the need of the adolescent mind for reflection and meditation." For three years our family lived outside. Our catamaran felt more like a raft than a boat. There were cabins, a head, a salon and a galley below decks but the inside space was cramped and hot. We ate all our meals outside and studied and read outside. Sitting around the table on the foredeck, leaves from our salad and leaves from our notebooks would flap and fly in the steady trade-wind breeze. We often slept on deck and over time the constellations and their nightly rotations became as familiar to us as our bedroom wallpaper. On long passages, we spent hours and days "in the open air, in the sunshine," lost in thought, in books, in games, and in work to make the boat go. When anchored in the same spot for weeks or months at a time, the children got to know islands as well as their own backyard. They walked them, drew them, mapped them, collected shells from their beaches and snorkeled on their reefs.

In her 1939 address, "The Reform of Secondary Education", Maria Montessori writes that: "The school should possess a museum of machines which are of suitable size so that the children can take them down and reassemble them, also use and repair them. [. . .] Just as the children in our elementary schools have already learned to fold their clothes, and to sew . . . here they must learn to put things right when necessary, to adjust a machine or the engine of a car, to mend a broken window or the catch of a door. They should also be able to make a path, build a shed, chop firewood and so on."

Well, everything on a boat breaks. The salt air is corrosive and strong winds put powerful loads on sails, lines, and winches. The constant motion will nudge and jiggle every knot, nut and bolt until it's chafed or loose. In many of the undeveloped parts of South America and the Caribbean we needed to fix whatever broke with the limited tools, materials, and ingenuity that we had on board. These compromising situations provided new possibilities of who could contribute to the family and how.

Every day something broke: pumps broke, filters clogged, electrical connections rusted over, the batteries died, or the solar panels stopped absorbing the Caribbean sun. My kids got grease smears on their cheeks as



they leaned into the engine bay alongside my husband and epoxy in their hair as they helped a friend build a much-needed dinghy. The children began to participate in ways that had never cropped up in our predictable and ordinary life on land. They learned how to do maintenance checks on the 24-horse power diesel engine, change the sparkplugs on the 2-horse power outboard for the dinghy, problem solve random rattles and squeaks from various parts of the rigging or the propeller shaft.

Montessori went on to specify that, “There should be technical instructors and staff who are qualified in practical work.” Life on a sailboat is a life where everyone becomes qualified in practical work! Everyone is vulnerable to and limited by the weather, sea conditions and local resources. These constraints coupled with the itinerant nature of the sailing life lead to a tight sense of community among sailors who share an anchorage in a far away place. It is common to barter and share skills and materials to repair each other’s boats. We were surrounded by “technical instructors.” Our neighbors and friends were welders, carpenters, sail makers, engineers, or simply folk who were good at fixing stuff. And because boats are small living spaces, the breakfast table doubles as the workbench. Repairs unfold in full view and usually with a need for an extra set of (perhaps smaller and more nimble) hands to reach a nut or pass a spanner.

Montessori teaches to keep head and hand in balance and connected through life. In the mornings, the children would usually do an hour or two of math, write in their journals, or write up a science project. The rest of the day was ‘hand work.’ We didn’t call it ‘head’ or ‘hand’ work at the time. I didn’t even know this is what we were doing. It is just what boat life required of us.

All boat work is ‘head and hand’ work. For instance, the ‘head work’ of plotting a course accounting for wind speed, tides, currents, and depths (i.e., practical applications for an adolescent’s math skills) complements the ‘hand work’ of trimming sails and steering a boat into wind and waves.

And I can think of no better ‘hand work’ than rope work. Everything on our boat relied on ropes and knots. Every rope has its own name depending on its role. The decks are attached to the hulls with lashings. The anchor hangs on a chain connected to the boat by two ropes called bridles and sometimes with extra rope called rode. We hoist sails with halyards, trim them with sheets, and in big winds reduce their size with reefs. We secure the



dinghy (our only means of getting to and from shore) to the stern of the boat with a painter.

And for every rope and role there is a knot that is just right for the job—one that reduces chafe, or give, or sideways slippage, or one that can be released under tension or in a hurry, or one that spreads a load, can slide along another line or provides purchase so a child can do the job as competently as an adult. Rope work is a work inherently accessible to children and adolescents so it didn't take long for my children to learn more knots and their applications than I knew. Once again, their work and their interests contributed real value.

In "A Montessori Vision of Adolescence," Larry Schaefer writes of adolescents that, "We need to know what their potential is, what they can do. We need to appreciate the tremendous power of what they can do." On our boat we discovered their potential simply because we found ourselves in situations where we needed to draw on that potential—in ways we never needed to at home.

Now my children are 13 and 14 and we are back in Seattle. I find myself longing for the rhythm of our days, the communal work and balanced dynamic between adults and children that we experienced on the boat. As I watched them raise sails and row the tender to shore, it felt like I was watching the adolescent version of using real knives and carrying porcelain teacups. Since reading more about Maria Montessori's vision of *Erdkinder*, I realize that what I witnessed onboard *Wakataitea* was a version of 'Children of the Soil'—on the sea.

And I'm asking myself what other unlikely Montessori classrooms might be out there?

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PREPARING YOUNG PEOPLE FOR 21ST CENTURY CHALLENGES



John Merrow began his career as an education reporter with NPR over 40 years ago with the weekly series, *Options in Education*, for which he received the George Polk Award in 1982. For over four decades, he served as Education Correspondent for PBS NewsHour & is currently President of Learning Matters, in New York City. His varied reporting has continually been on the forefront of education journalism: Merrow is the only reporter to have interviewed every U.S. Secretary of Education & the first to get the inside scoop on the college admission process. He has worked with top leaders in shaping public policy, and he even ran the historic 1988 meeting in Itasca County, Minnesota that sparked the charter school movement. Since 1984, he has worked in public television as a NewsHour correspondent & as host of his own series of documentaries. He has received George Foster Peabody Awards for *School Sleuth: The Case of An Excellent School* (2000) and *Beyond Borders: Personal Stories from a Small Planet* (2006), Emmy nominations in 1984, 2005, and 2007, four CINE Golden Eagles, numerous awards from the Education Writers Association and more. (Photo courtesy of PBS NewsHour, pbs.org)

PREPARING YOUNG PEOPLE FOR 21ST CENTURY CHALLENGES

by John Merrow

"Is it within our power to build a system of schools that allows dedicated educators to be successful, while giving all children opportunities to reach their potential?" John Merrow asks. "I believe it is." As he reflects on the history of federal involvement in public education, Merrow highlights the urgency for structural changes in current education systems. To achieve this, he suggests an approach that would expand the influence of Montessori education in child development and address the complex question of whether public education serves as a public or private good.

This talk was presented at the 2018 Conference, "Montessori's Framework: Reshaping Education for All Children," Dallas, TX, November 8-11, 2018.

My Montessori connections are not particularly impressive: my wife is on the board of a Montessori School in New York City, one of my daughters attended a Montessori school, I have visited/filmed in Montessori schools including one in the Golden Triangle of Thailand, and I had the honor of meeting Renilde Montessori, Montessori's granddaughter, and speaking to AMI in 2000.

My qualifications notwithstanding, I do have ambitious goals this morning. I hope to convince you that the past 20 years or so of "education reform" have largely failed. I want to give you a brief history of federal involvement in public education, a road map of how we got to where we are now. I would like to explore the complex question of the public purpose of education: is education a public or a private good, or both? Are these two goals in sync?

And finally, I intend to argue for a ten-step approach to educating children that would, if followed, expand the influence of the Montessori approach to helping develop children. While this is not an academic paper, my arguments are supported by two universally respected individuals - Aristotle and Maria Montessori.

First Point - "School Reform" Has Failed.

The recent National Assessment of Educational Progress (NAEP) concluded that we have just lived through a 'lost decade'. Believing that accountability can be achieved

by giving more and more tests is about as irrational and nonsensical as believing that one can lose weight by stepping on the scale over and over again.

For about twenty years, the school reform movement has been dominated by people who, at base, believe education has been a 'people problem.' Get better teachers, and things will improve. Opposing them are folks who believe we need to make teaching a 'better job'.

'Better people' has been led by Teach For America (TFA), charter school advocates, Bill Gates and other foundation folks, Michelle Rhee, Democrats for Education Reform, and lots of hedge fund billionaires. 'Better jobs' was basically Diane Ravitch with a megaphone, but that group is growing in size and power.

Point Two - A Brief History of the Role of Federal Government in Public Education

The word "education" does not appear anywhere in the United States Constitution.

1867: Congress creates a Department of Education, renamed "The Bureau of Education" and then renamed the "Office of Education." Its role was to keep track of stuff: number of students, teachers, colleges, etc.

1917: For the first time, federal dollars go to K-12 schools, when Congress passes a law to provide funding for agricultural and vocational training. Note that it's targeted money, not aid for all students.

1950's: Congress provides 'impact aid' to school districts with a large military presence because children living on bases attend local schools - again, this is targeted aid.

1958: The first significant aid to (potentially) all public schools comes in 1958 - after *Sputnik* - with the passage of the National Defense Education Act. It's significant that President Eisenhower and Congress presented this aid as essential to defending our country.

The next infusions of federal aid were - once again - intended to support specific categories of students: low-income students with the Title One provision of the Elementary and Secondary Education Act of 1965; minorities with various civil rights legislation; female students with Title IX of the Higher Education Act of 1972; and the handicapped with the Education of All Handicapped Children Act of 1975.

1979: The U.S. Office of Education joins the Cabinet under President Jimmy Carter, fulfilling a campaign promise and raising education's profile in Washington, but also making it a target for many conservatives.

In 1983, the controversial report known as 'A Nation At Risk' was released by the National Commission on Excellence. Its strong language included the warning that the 'educational foundations of our society are presently being eroded by a rising tide of mediocrity'. This business-friendly commission set off the first of what would seem to be endless cycles of "school reform." State and local school districts strengthened curricular requirements in this first wave, a much-needed change that made American schools more demanding. But the federal government did not take action.

Education's national presence increased under George H. W. Bush with his push for national goals and the first ever National Education Summit. The standards and summit were words, however, not dollars. His successor, Bill Clinton, tried to persuade Congress to adopt 'opportunity standards' which would have provided a broad conception of educational opportunity for all. Congress would have none of it.

It is notable that, to this point, federal involvement was essentially a matter of providing resources - i.e. INPUTS, not outputs. And 'local control' remained the prevailing rhetoric. This changed dramatically when George W. Bush became president. Congress passed the No Child Left Behind Act of 2000. This act significantly covered *all* children, not any specific categories of students as in the past. Any school district that received federal money (and 100% did!) had to meet these new standards or face the consequences. And, for the first time, the federal focus was on OUTPUTS - schools had to make an 'adequate yearly progress' for all subgroups of students or face sanctions, including the closing of the school and firing all of the adults working in the building. Standardized test scores were the dominant form of measuring success.

Eight years later, Barack Obama's administration created "Race to the Top", in which states competed for federal dollars - the 'winners' were those who promised most convincingly to do what the administration wanted: judging teachers by test scores, more charter schools, and other requirements. And so, since 2000 to the present, the federal government - which has been providing at most 7-8% of the dollars America spends on public K-12 - has been calling the shots.

Point Three - Education's Public Purpose

Education's public purpose was once very clear, now fuzzy and fading. Once schools focused on 'nation building,' 'workforce development,' and 'civic engagement.'

Schools once were supposed to raise the floor for all, but now it's largely about raising the ceiling for (some) individuals.

That is, the focus is now on education as a private good. The GI Bill and Pell Grants embody a public faith in education and the collective good. As a country, we were saying 'we will give you an opportunity because when your life improves, society benefits.' The shift from grants to loans represented a fundamental shift in values: 'when you get an education, you are going to make more money, so you should pay for it. And it's now a giant sorting system, which we no longer can afford, if we ever could.

Point Four: My Ten Steps

Step one: Ask a different question

Stop asking about every child, "How smart are you?". Instead ask, "How are you smart?". Most schools, public and private, ask the former question. What's more, they rely on conventional measures to provide its answer, mostly the results of machine-scored multiple-choice tests. And using that data, schools basically ratify social and economic status, instead of providing true opportunity for all children.

If you ask instead, "How is this child smart?", you can begin to work out how to proceed, because all children have strengths. You can determine what success would look like and how to measure it. Asking this question – and following through on the answer---will bring about a paradigm shift.

I am, of course, not the first to insist that educators ask that question. Maria Montessori wrote, "Everyone in the world ought to do the things for which he is specially adapted. It is the part of wisdom to recognize what each one of us is best fitted for, and it is the part of education to perfect and utilize such predispositions. Because education can direct and aid nature, but can never transform her."

Step two: Start early.

Expand early childhood programs because "the greatest development is achieved during the first years of life, and therefore it is then that the greatest care should be taken."

And, please, no testing of 3-year-olds and 4-year-olds. These programs are for enjoyable learning and play time. Stress-free. Staffed by professionals who enjoy the same status as k-12 teachers. This is not an original idea. "Early childhood education is the key to the betterment of society."

Here's a trick question: how many of you feel that educators need to do more to get children 'ready to learn'? Follow up question: how many of you acknowledge that all chil-

dren are born ready to learn because the human species is naturally and innately curious? Some children may not be “ready for school”, but that’s an entirely different notion.

Step three: Schools are not factories!

We must abandon the idea that schools are factories in which teachers are the workers and students the product. Instead, recognize that in our most effective schools students are the workers, and knowledge is their product. Teachers are management! But the work must be real: either individual activity or project-based learning that challenges and intrigues children because “the child who concentrates is immensely happy.” The best projects are those that do not have one right answer, where the teachers may not know the answers but are also learning, and where there is genuine knowledge creation.

Step four: Make schools safe for children.

Make a commitment to making schools safe ...and not just physically safe. They must also be *intellectually safe*. At intellectually safe schools, it’s great to be smart, to work hard, to do well, and so forth, and it’s fine to say “I don’t know” or “I don’t understand.” And it’s ok to be wrong. The engineers who developed wd-40 were hoping to cash in on the space race. They set out to develop a water soluble (hence 'wd') solution, and, being engineers, they were methodical in their experiments. Their first effort, which failed, was labelled 'wd-1.' The second failure, 'wd-2.' By now you can figure out how many times they failed before finally succeeding. That's an important lesson for all of us. Failure is an opportunity.

And they must also be emotionally safe, no easy task because children can be cruel.

The three functions of school, historically and today, or why we have to go to school:

1. That’s where the knowledge was kept (not true today, so schools must adapt.)
2. Socialization. That’s where we get to know all sorts of different kinds of children. Today there are apps for this, and so schools must adapt. Technology is value free. Consider the pencil, a very old technology. It can be used to write love letters or hate mail. The user makes the choice.
3. Custodial care, because our parents are working.

Of those three, only the last still applies. But if we adapt to the new realities and change schools, they become dangerous places for our most vulnerable children, not to mention incredibly boring for our brightest kids.

Step five: Measure what you value.

Schools must measure what we value, instead of automatically valuing what they measure, most often with machine-scored bubble tests. SO, if we value physical fitness and don’t want our children to be obese, then we must measure recess and physical education.

And play matters. "It would be so simple to allow children, when tired of sitting, to rise, and when tired of writing, to desist, and then their bones would not be twisted." we value the arts and music, make certain that we measure just how much (or how little) of those experiences kids actually have. Principals are smart. They know that 'zero' is not a good answer....

And while you are at it, declare a three-year moratorium on all machine-scored bubble tests, during which time invite the entire community to debate what matters in schooling. The goal is to 'measure what we value' instead of continuing the foolishness of merely valuing what we now measure. I suggest one criterion when deciding which tests to keep: keep only those tests whose results come back in time to be useful. That will get rid of a lot of tests, the ones where results come back in late August! The goal of measurement ought to be 'assess to improve,' not 'test to punish.'

Step six: Expect more from students.

Here I want to quote Aristotle, "We are what we repeatedly do; excellence, then, is not an act but a habit." Educators and parents and politicians must stop talking about 'the achievement gap' and recognize the importance of closing both the opportunity gap and the expectations gap. Make the school experience more challenging and interesting. Ask more of our kids. They will respond as long as the work is real, and the best teachers will agree that "the greatest sign of success for a teacher... is to be able to say, 'the children are now working as if I did not exist.'"

Trick question: how many of you feel that schools need to be more 'rigorous'? Follow up question: how many of you refuse to use the word 'rigorous' because it means 'harsh and unyielding' and is associated with death—rigor mortis? Instead school should be 'challenging' or 'demanding' or — dare I say it!! — 'Interesting,' because "when you have solved the problem of controlling the attention of the child, you have solved the entire problem of its education." You are, of course, agreeing with Maria Montessori, who understood that children must own their work.

Because children become what they repeatedly do, it's essential that they do different things in school. If schools demand that students fill in bubbles, color inside the lines, fall into line when ordered to do so, and never ask why or question authority, those children are unlikely to become independent thinkers and doers.

If we value the arts and music, make certain that we measure just how much (or how little) of those experiences kids actually have. Principals are smart. They know that 'zero' is not a good answer....

Going forward, we must expect and encourage students to dig deeply into subjects and ideas they are curious about. Teachers must then use their students' curiosity – about *The Odyssey*, skydiving, auto mechanics, the French Revolution, or rap music – to ensure that they also master clear writing and thinking, mathematical concepts, public presentations, and other essentials. This fundamental shift actually makes perfect sense. Think about it: if we want our young people to become skilled, reliable workers, then they should be workers in school.

Many schools now spend lots of time, energy, and money trying to establish 'school-to-work' connections, but, again, the best preparation for working and for leading a satisfying life is meaningful work. Not memorizing the periodic table or the longest rivers in the USA, because that's just regurgitation.

However, 'expecting more' of students does not mean increasing the amount of work piled upon students (or teachers, for that matter). That would qualify as 'rigorous' education, and one thing I learned over years of reporting is not to trust any educator who talks about the importance of rigor and rigorous education.

Expecting more: Create cross-age tutoring opportunities, enlisting older kids to help struggling younger ones. This actually benefits both age groups, and it's effective. It teaches other lessons as well, including the importance of community and of sharing what you know with others. It will keep some kids from being held back and others out of special education. That's better for them.

Expecting more: Create 'early college' opportunities for ambitious high schoolers. A successful program in Texas that we reported on for the PBS NewsHour actually lured high school dropouts back to school with the promise of a more engaging curriculum that included opportunities to take college courses. At the high school graduation we attended, most seniors also had college credits, and quite a few members of the class also received their 2-year college degrees with their diplomas! Fewer high school dropouts, a clear and strong bridge to higher education, a better reputation, and cost savings.... What's not to like?

Step seven: Connect with students.

The cliché 'kids don't care how much you know until they know how much you care' is true. Value them, and make sure they know that you value them because "joy, feeling one's own value, being appreciated and loved by others, feeling useful and capable of production are all factors of enormous value to the human soul."

Every student should be well known by at least one caring adult, but empathy alone is not enough. The school schedule must be restructured to allow for personal con-

nections, the way Ted Sizer did with his opening homeroom period of 35 minutes, to allow time for real connections. 'Social and emotional learning' matters.

Step eight: Develop digital citizenship.

Kids may be 'digital natives,' but they won't become digital citizens without our leadership. It's not 'idle hands do the devil's work' or even 'idle thumbs do the devil's work.' The true statement is this: 'idle brains do the devil's work.'

That's also an argument for project-based learning that involves technology...as well as kids from other schools, because there's no reason on god's green earth for kids not to be connected with students in many other places.

Find interesting ways to connect with other schools. For example, we are in Dallas, and perhaps some of you teach here. It turns out there are eleven other communities named 'Dallas' in the USA, plus two more that used to be named 'Dallas.' And there are three more in Canada, one in Scotland, and one in Australia. There's even an asteroid named 'Dallas.'

That's a natural hook, a door opener. Why not reach out to schools in the other Dallses and figure out how to collaborate? And don't necessarily connect to other Montessori schools. In fact, don't even ask that question; just connect as educators. At least seven towns in the US have 'Hudson' in their name...and not necessarily named after Henry Hudson. And if you teach in Columbus, the world is your oyster...

If you believe that students are the workers in a school and that knowledge is their product, then encourage those connections. [My book] *Addicted to Reform* includes a bunch of projects that you might find appealing. And the ultimate goal here is for children to be producers, in a world that wants them to become consumers....

And speaking of technology, do not buy any canned technology programs. None! Nada! Zippo! Instead, identify the early adopters among your staff and figure out why the district wants technology in the first place. Please read the chapter about technology in *Addicted to Reform*. This field is full of hucksters and aggressive salespeople, eager to take advantage of naive educators. Too many school districts have wasted millions and millions of dollars on crap.

Step nine: Trust teachers.

Remember, teachers are management, and the kids are the workers, doing real work. If we enable teachers to do what they signed up to do—which is help children grow toward their full potential—our best teachers will stay longer, recruitment and replacement costs will go down, and administrators will spend less time 'breaking in' the rookies every year.

One piece of evidence of trust: pool all professional development dollars and cancel contracts and plans for spending that money. Instead invite teachers and other educators to develop plans for their professional growth. I will bet that you will end up spending less on what will prove to be better pd, more effective because your teachers will own it.

Step ten: Energize the 75-80% of households that do not have school age children.

And your students are the best representatives. How? Let students interview citizens, prepare video reports about them, put them on YouTube, and so on. Community support matters, which is why schools need to be involved in their communities. You cannot just focus on individual student success, but must emphasize how your school makes the community better ...Always remembering that most people in your community do not have school-age children.

Education is both a private good and a public good, but we are losing sight of the latter. I believe that schools must reconnect with community members who are not naturally engaged. I suggest a community-wide dialogue about the purposes of school. And while you are at it, remind them that these children – who may not look like them – will be tuning up the jet engines on the planes they fly on, monitoring their IV drip, and processing their tax returns, and so it's in everyone's interest to educate all of them, to the max.

The goal of school is not just to get your child into a good college or on track for a career. Its original and still vital purpose is to help grow American citizens.

Unpack those words:

Help means it's a team effort, and parents are key members of the team.

Grow means it's a process. You are making a film, not taking a snapshot. No one test should be allowed to define students.

American means just that: We are Americans, part of a great country. We need to teach our students to ask what they can do to improve America.

Finally, *citizens*. That's the key word because we have to decide what it means to be a good citizen of this country. Of course we want them to be more than good test takers, but what else? This should be, in my view, a community-wide conversation.

And we should not shrink from a discussion of values, and the teaching of values. Again, quoting Maria Montessori, "The first idea the child must acquire is that of the difference between good and evil." That's it. Ten steps supported by Aristotle and Maria Montessori. I certainly am grateful for the opportunity to share these thoughts with you

and I wish you well as you expand and share the Montessori vision. America needs it more than ever.

MONTESSORI: A COMPREHENSIVE APPROACH FROM BIRTH TO MATURITY



Guadalupe Borbolla is the director of Colegio Montessori de Tepoztlan, in Cuernavaca, Mexico. Her school has a full Montessori program at the early childhood, elementary, and adolescent levels, through high school, including a farm school. She holds a bachelor's degree in political science, a graduate diploma in special education, and an M.Ed. from Loyola University. She is Montessori-trained at the assistant to infancy, primary, and elementary levels as well as the adolescent orientation. She is currently a director of training in Mexico and Spain for Instituto Montessori de Mexico, which is affiliated with AMI. Guadalupe has more than 30 years of Montessori experience, is an international speaker and a school consultant, has collaborated in training courses in different parts of the world, and has given parent education for more than 25 years.

MONTESSORI: A COMPREHENSIVE APPROACH FROM BIRTH TO MATURITY

By Guadalupe Borbolla

Guadalupe Borbolla outlines the magnificent story of human development - "the constructive rhythm of life" - through the eyes and mind of Dr. Montessori's unique inspiration.

This talk was originally presented at the NAMTA conference titled Building Partnerships: In Support of the Child, Teacher, and Parents in Baltimore, MD, Oct. 11-14, 2018.

Life is a journey that starts with the origin of two cells that touch each other in such a way that one penetrates the other, forming a single fertilized egg-cell. This very moment of intimacy will mark the story of the individual that we will become. We are spiritual beings in a human journey, and for this journey, we need a human body; and like any journey, there are ups and downs - mountains to climb, valleys to cross, rivers to navigate - constituting the most amazing journey each human being has to accomplish.

The constructive rhythm of life, says Montessori, is what characterizes the construction of each of us. What does she mean by a constructive rhythm? Rhythm comes from the Greek *rythmos* "any regular recurring motion, symmetry" (Liddell and Scott, 1966). It is a recurrent pattern in time that can be applied to a wide variety of phenomena having a periodicity or frequency that can span from a microsecond to many years. The concept of "timed movement through space" (Jirousek, 1995) gives us a closer idea of what Montessori wanted to say. The child moves continuously, uninterrupted from birth to maturity, with a timing that has to do with his rhythm of growth. It refers to development that never stops from birth to death.

Every human being that walks the earth belongs to the same species, but each of us is individual in his or her unicity. We all respond to the same genome, but there are certain characteristics in each of us that makes us one of a kind.

What Makes Us Human?

Humans have evolved alongside other species. It is thanks to the advancements of each of those species that humans have been able to reach the level of intelligence we know today. Humans share unrelated evolutionary convergence (unrelated, but arriving at very much the same biological solution) with other species. Let's think about language. The development of language in humans has evolved after many thousands of years since our appearance on earth. Baby birds develop singing chick-babble much as human children develop baby-babble. (Simon Conway Morris, 2004). The fact that baby birds develop "chick-bab-

ble” that resembles the evolutionary solution that humans developed in order to talk is an evolutionary contribution to the fact that humans could establish a language. Human nature cannot be understood in isolation from the rest of nature. Our way to solve problems resembles the way other species do it as well. This means that there is animal intelligence, and that we are not the only intelligent beings on planet earth. We share with them the capacity to make tools, imitate each other, have culture, think ahead, be self-aware, or adopt each other’s point of view. (Frans de Waal, 2003).

A human child, then, is the result of thousands of years of evolution. Instead of having animal instincts, we have to create the mind and psychic organs that will permit us to become full and complete human beings. In other words, we need to construct reason, will, character, memory, order, intelligence, language, refinement of movement, refinement of sensorial perception, and a social self. (Montessori, *The Absorbent Mind*, 1949/1988).

To achieve this amazing psychic construction, human children have an ABSORBENT MIND that helps them absorb every aspect of their culture without effort or distress. Through this amazing tool, children will be able to capture every aspect of their environment, but they are especially interested in you, parents and teachers. They are able to read your behavior, facial gestures, attitudes, and states of mind. They will analyze your state of happiness or frustration and will want to make you feel better. Children are natural psychologists and can analyze family and school situations in an amazing way. We are surprised when they describe a very complex situation in a few words. “I don’t think Daddy is happy that grandma came to visit” or “I don’t think my teacher likes me as much as she likes Joe”.

SENSITIVE PERIODS come in time to enhance certain aspects of the absorption. There are certain periods for certain constructions. It’s like choosing the perfect moment for the perfect happening. The youngest children are sensorial learners. Every sensitive period constructs a psychic organ so that ORDER, LANGUAGE, MOVEMENT AND THE SENSES will be developed, refined, and perfected.

The Prepared Environment

The Montessori prepared environment is one of the most amazing creations ever made. Montessori says that “the psychic life of a child needs to be protected and to be surrounded by an environment that could be compared with the wrappings placed by nature about the physical embryo,” (Montessori, *The Secret of Childhood*, 1936/1972). If we examine the psychology of the age, the child’s powers correspond to the child’s interest to explore the world, his

“the psychic life of a child needs to be protected and to be surrounded by an environment that could be compared with the wrappings placed by nature about the physical embryo,”

immediate environment. The Children's House child is a sensorimotor explorer through movement, the senses, and the help of manipulative materials. What they like most are great contrasts.

The prepared environment is not a teaching environment; it is a developmental one. It is the child acting upon the environment that makes things happen. It is not the action of the teacher or the scope of the program for the child to learn. It is the child who creates his own activity through free selection of the materials. We don't teach; we present activities and give lessons that will appeal to the child's intelligence and natural curiosity; it is the child's inner teacher that does the rest. The Montessori guide will observe and present exercises and activities that are known to be liked by children at a certain age, but after they are presented, the guide observes the child's choice to repeat and perfect. Observation is the way that a Montessori teacher knows "what" and "when" to present. We present a way to use certain material and we leave the child free to explore and discover all that the material has for him to learn. Montessori materials are developmental, not didactic. We want children to develop their personality while they learn and enjoy knowledge.

Joyful learning should
be a human right.

Dr. Montessori says that life should be a single whole: **the mind to think, the heart to feel, the hands to work, and the feet to explore and walk as far as possible, a consciousness to act and change the world.** How can schools all over the world create Montessori programs that will take children from 0 to 18 in environments where learning is seen as a consequence of growing and maturing, enriching the life of the child? Even more, humans are in search of happiness, and Montessori has made it possible for children to be happy while they learn. Joyful learning should be a human right. Institutions that cause stress in children in the name of high academic achievement are detrimental to the child. Learning is a natural joy, and adults should accompany children in this natural process. Acquisition of knowledge has to go hand in hand with meaningful work: **the work of the hand, the heart, and the mind together.**

Planes Of Development

Children flow from one stage to the other. It is the action of nature, not the human activity that causes it. A child, through the process of adaptation, has a biological mandate to become a full-grown human being. This is the way every child follows his inner teacher. This inner teacher will be the guide towards acquiring the characteristics of the adult human being. Survival is the mandate every human child is born with. To be able to adapt and survive in his environment, children need to learn. Learning then becomes not something the adult needs to teach; it is something the child needs to look for, according to the laws of human development. The child walks through the planes as primitive man walked

through evolution. Through the planes of development, we can see the needs and characteristics that distinguish each one from the previous.

This first stage can be compared with the formation of clans, small groups of humans that came together to make life easier, to take care of the children and to protect themselves from outsiders and predators. It is a stage of the formation of families and small societies. For the child it is the roots of character formation. Here you see the true preparation for adult life. The adult he will be is under construction at this stage.

The second stage can be compared with the construction of the first towns and small cities. It is a stage of formation of the moral self, where values and customs are closely observed and studied by the child.

The third plane of development is a big step towards independence, production and exchange, giving money a commercial value. It can be compared with the avenue of agriculture, production, and commercialization of products.

In the fourth plane, the young adult has reached maturity and is willing to work for the good of his personal needs, and the good of humanity. It can be compared to the coming of the Industrial Revolution, the construction of factories, schools, tall buildings and the advancement of technology.

But it is in this first stage where you can see very clearly “The Secret of Childhood”. Montessori describes it very clearly in the first pages of her book with that same title.

“There is in the soul of a child an impenetrable secret that is gradually revealed as it develops. It is hidden like the pattern followed by the germ cell in its development which is only seen in the process of development. This is why it is the child alone that can reveal the plan that is natural to man”. (The Secret of Childhood, p. 20)

First Plane of Development (0-6): The Roots of Character Development **“Help me to help myself”**

- The true preparation for adult life lies in the first plane
- Montessori: Education for life from birth.
- The secret of childhood
- Process of adaptation
- Construction of the psychic organs
- Sensitive Periods and the Absorbent Mind
- Human Tendencies
- Cohesion in the social unit
- Process of Normalization

What we can observe through the natural way of growing is a natural cohesion among the children that she called “cohesion in the social unit.” The action of the human tendencies is within us all our lives. We are born with tendencies that guide our actions

and preferences until the day we die. They are potentialities, the raw material that help us construct our inner self. We need to become fully human, and thanks to our tendencies, we can achieve wonderful things throughout our lives.

The phenomenon called “normalization” can be observed in the Children’s House. The child, through his work using his powers of concentration, achieves this amazing state of being. Human hands placed on tri-dimensional objects permit the human infant to construct images in the mind. Aristotle said, “There is nothing in our mind that has not been captured by the senses” and that is precisely what the child does in his 6 first years of life.

Second Plane of Development (6-12): The Stem that Grows Tall and Strong **“Help me think for myself”**

- Exploration of social life: going out
- Group work
- Timelines
- Experiments and charts
- Investigations, animal care
- Imagination and morality
- Scientific thought
- Acquisition of culture
- Acquisition of knowledge

The primary psychological characteristics of the second plane have to do with the acquisition of culture, the acquisition of knowledge, vibrant imagination, and morality. Second plane children also have a natural curiosity about human groups. Montessori says that a great development of consciousness has taken place during the children’s house years, but now all this consciousness has to be “thrown outwards” in a special direction guided by an extroverted intelligence causing a great demand in the elementary child to know the reasons of things. Montessori says: “Knowledge can be best given where there is eagerness to learn, so this is the period when the seed of everything can be sown, the child’s mind being like a fertile field, ready to receive what will germinate into culture.”

Human Culture

In the same way that nature has made the first plane for the absorption of the environment, the second plane was made for the acquisition of culture. Even though every human person on this planet belongs to the same species, a variety of cultures, languages, values and behaviors have been developed throughout the 6 million years that have elapsed since the first human group formed and the 200,000 years that modern humans have walked the earth. Since the very beginning, children have been very important in the human group because they generally continue living after their parents pass away. Survival and belonging were strong reasons to form families and stick together. For this, adults wanted to pass on to children the knowledge they needed to survive. They needed

to be autonomous to face the challenges of a very nasty environment. Autonomy meant being able to find the food needed, constructing shelters, and covering their fragile body with animal furs. Hunting, gathering, harvesting, shelter building, making clothes, defending themselves from predators and other human groups, and being able to move from one place to another became a way to survive and become in time a father or a mother to their offspring. Children needed to be educated in all these aspects that we call “fundamental needs”.

Emilio Lledó (2018) says that to educate is to let the culture grow. We educate so the person can let the culture grow within, rooted to the soil where that culture is formed. Culture comes from the word cultivation; cultivation has to do with working the land. Culture is what keeps us rooted to our own land. Education devotes itself to knowing the culture. With the profound knowledge that your culture gives you, you become able to make contact with other cultures of the world. That makes you capable of giving each one value and seeing the beauty and intrinsic worth in each of them. Culture means movement because we move in a way that reflects who we are and to what culture we belong. We are natural learners that want to become human beings. We teach with the knowledge we have acquired, but we educate according to the person we have become.

Cosmic Education And The Great Lessons

For the second plane, we have Cosmic Education. Cosmic education was specially made for the 6 to 12 child whose imagination permits him to make fabulous images of the “great stories” that are told at this age. Telling stories is part of human nature. Every culture has created stories that talk about their origins, beliefs, and culture. Stories about the origin of life exist in almost every human culture. Each of them talks about how this particular group of humans visualizes and explains their cosmogony. We may know a story that comes from an experience lived many years ago, but when we hear the story, we make it ours and we connect it with our present experiences. We tell stories at any age, but the stories have to be connected to the psychological characteristics of each age in any plane of development.

“The Great Lessons” are the entrance door to each of the areas of study in elementary. The Great Lessons are specially told in the second plane in the form of “Cosmic Fables”. Cosmic fables have an educational age and goal, and have an indirect implicit moral message. Great stories are bold, real stories that appeal to the imagination and curiosity of the second plane child. They are told by the guide in a way that children are amazed by the mere thought of the coming of the universe and the earth, the coming of life, the coming of humans, the story of writing and the story of numbers, all presented with the help of timelines, experiments and impressionistic charts. Children learn from these stories great and true ideas, great truths, seeds of knowledge are formed that remain in the child’s mind and grow with the child. They also give a guide and orientation to the child in life. These stories will remain for life through the stages of development.

The backbone is the history of knowledge, how human beings came to develop this knowledge. How could our minds evolve and create the thinking tools that make us who we are? Every happening in history has a subject who performed it. Who invented it? Who discovered something? How did it happen? All the stories give children tons of ideas for making projects and “going out” wherever their imagination takes them. The exploration of social life is also an important part of the elementary years. Children want to know how society works, and they need to go out and look. Then they can safely come back to school and continue with their work, using their experience to enhance their creations.

“The secret of good teaching is to regard the child’s intelligence as a fertile field in which seeds may be sown, to grow under the heat of flaming imagination. Our aim therefore is not merely to make the child understand, and still less to force him to memorize, but so to touch his imagination as to enthuse him to his inmost core. We do not want complacent pupils, but eager ones; we seek to sow life in the child rather than theories, to help him in his growth, mental and emotional as well as physical, and for that we must offer grand and lofty ideas to the human mind, which we find ever ready to receive them, demanding more and more.” (To Educate the Human Potential, p 11)

THIRD PLANE (12-18)

“Help me to resolve and act by myself”

- Development of self-consciousness
- Solidarity among themselves
- Ethical, moral, and humanitarian
- Critical of their social context
- Micro-economy as a social experience
- Capable of mature thought
- Creative and independent
- The beginnings of a personal social vision

It is important to see how the child changes through the planes and it is essential to distinguish the psychological characteristics. For the third plane, we have the construction of a personal view of society. The main difference between the planes is that in the first plane the absorption of impressions is at an unconscious level. In the second plane, the discoveries happen at a conscious level, and in the third plane consciousness relates to life experience. The adolescent is the receptor of all the foundation built from birth on and now he wants to put it to use for his own good and the good of others. Social solidarity is seen as a real, tangible phenomenon. Adolescents need to work with a social purpose. Academic achievement cannot be the sole aim. The focus has to be community work with a social and economic purpose.

In Montessori the study of a subject has to be based on the psychology of a child. Children can use learning as a way of constructing themselves. Montessori wanted to help children to learn in a way that was useful to them. Therefore, in adolescence we get all the

fruits of Cosmic Education. We will harvest all the seeds that were sown in the second plane.

Farm-School And The Micro Economy

Montessori's concept of the farm-school was visionary with regards to the psychological characteristics of the adolescent. The farm is a very natural setting for the adolescent to grow and mature. The farm offers different activities for the adolescent to do in the form of real activities. The possible activities that the farm offers fit the characteristics of the age - the tendencies to work and associate with others have a very profound expression at this age. On a farm there is a way of life, there is a way things have to be done. There are plants and animals that depend on the adolescent watering, feeding, cleaning and taking good care of them. The students also have to take care of each other: cooking, washing, cleaning, sharing, singing, playing, laughing, crying, and living together. They form a productive community that looks to be of service to their community, their country, and the world.

The term "Erdkinder" comes precisely from the fact that adolescents are learning about civilization through its origin in agriculture when the tribes settled on the land and began a life of peace and progress. By the study of our origin and evolution, the adolescent grasps the idea that life can be uplifting and productive in many ways that have been forgotten. These "novices of society", through their work on the Farm-School can experience how labor can take you to a higher degree of beauty and usefulness.

Freedom and discipline have a different face in this third plane of development. Adolescents need a degree of freedom to develop a discipline of association with other people. The discipline comes from the physical work they do, and this develops into a systematic study that will allow for the transformation of the way we do things. Work at this plane helps the adolescent to know himself. He discovers many things about himself and the way he relates to others. It is a moral training through practical work. Morality is in the way we work together and depend on each other. I cook for you; you do the laundry!

The work done during previous stages of development is what permits the adolescent to encounter the discoveries that are essential to scientific research. The study of evolution takes us back to the beginning of it all, to the origin. We humans are in search of our origin. Where do we come from? Who are we? What are we doing here? We are born with a cosmic consciousness. We are connected to the universe in many ways, we are stardust, and ancient cultures talk precisely about this human connection to the universal laws.

Sensitivities

There are two sensitivities in the 3rd plane: personal dignity and sense of justice. The Montessori adolescent, through his passing from one plane of development to the other, has constructed an inborn, natural sense of justice that is very clearly seen in most of the decisions that he makes in the school community. Adolescents have a special sensitivity

towards justice because they have an inner development based on what they have learned to be their origins, legacy, and purpose in life. They are in search of their “cosmic task”.

Personal dignity is clearly seen in every activity, self-expression, art piece, story writing, and occupation they perform. These adolescents are dignified by the way they conduct themselves and by the way they want to contribute and change the world. They are a wonder and each of them recognizes their Montessori legacy.

The Secret Of Childhood - The Secret Of The Adolescent.

“The intimate vocation of MAN is the secret of the adolescent. If social progress is realized through the succession of the generations, then these children, as they grow up will become more highly developed than their adult teachers”.

(Montessori, From Childhood to Adolescence, p. 72)

THE MONTESSORI HIGH SCHOOL

“Help me to make an impact on the world by myself.”

For the sub-plane 15 to 18 we have distinguishing characteristics:

- Sharing with others all the gifts received from their Montessori education
- Keeping a close relationship with children in other planes of development
- Interested in observing Infants and Casa environments
- Writing and editing a cultural magazine including all aspects of the school life
- Interested in creating wealth through social entrepreneurship
- Micro-economy as a center of gravity
- Ownership of the means of production
- Literature, photography and social economic analysis
- Applied Science
- From the use of limits and consequences to the interest of construction of the law
- Interested in exploring a futuristic view of society
- True preparation for adult life

The Montessori High school is a work in progress. Some experiments have been going on throughout the world for some years now. We are trying to understand what the needs of the older adolescent are. We have two major tools: observation and interviews. In my experience, after they become 15, Montessori adolescents know quite well what they want. They give great importance to two aspects: socialization and academics. They want a larger cohort of friends and acquaintances, and an educational institution that will probe a high academic level. Some of them stay at their Montessori school and some oth-

ers decide to look for something different. Some of the ones that leave come back the next year saying: “That was not what I was looking for”, or “I was mistaken, my expectations were wrong”, or “I couldn't find there what was really important: good friends and good teachers”.

Community work is one of the main creative expressions of the older adolescent. His work with the indigenous communities fills his spirit with joy and compassion. He is interested in the people that look “different” to find that we are all human beings of great value.

Scientific Research

The social interaction of adolescents with different kinds of people in their community gives them a real terrain for action. The adolescent has had the opportunity to build up in himself all the essential human abilities; he is now ready to work for the benefit of others. He wants to be useful; he wants to be a transforming force. Scientific research is a natural approach for most students in Montessori programs, but this doesn't happen overnight. As part of his nature, the Montessori adolescent passes from one discovery to the next. This is part of the natural way in which he has been educated.

The Remedy

The sometimes painful transition of the young adult to the professional world has to be based on a personal and spiritual growth, a strong personal conviction that they have the necessary tools to change the world and make a positive impact in their field of action.

In the last chapter of her book *To Educate the Human Potential*, Montessori talks about how childhood has been completely ignored by putting the adult's needs before the children's needs. She sees the possibility of great forces in the child that can be developed. She claims that spiritual development is needed beyond satisfying his need for food, clothing and shelter. She is advocating that the advancement in human progress that would result in a stronger and better humanity depends on the child.

“Through long experimentation we have now arrived at much elimination of error, and the possession of a key which can unlock for children the gates of a healthy and happy education. On our courage and perseverance in its use depends the future of humanity”. (To Educate the Human Potential, p. 81)

“The human personality is essentially one during the successive stages of its development. Yet, whatever human being we consider, and at whatever age, whether children in the primary school, adolescents, youths or adults, all start by being children, all then grow from childhood to manhood or womanhood without changing the unity of their persons. If the human personality is one at all stages of its development, we must conceive of a principle of education which has regard for all stages”. (The Formation of Man, p. 7)

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MONTESSORI

THE ORIGINAL MONTESSORI CRAFT