



The Montessori OBSERVER

Function of
Scientific Teaching

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IMS Completes Third Technology Webinar

On August 14, 2021, IMS completed its third 8-session webinar presenting the unique "Technology of Scientific Education". During these seemingly interminable lock-down pandemic times, this remote format has proven quite effective in making the IMS specialized technical knowledge available to a wide audience of parents and educators around the world.

Lee Havis, inventor of this technology, has led all three webinars, each one improving in quality and content from the one before. The first session of the third webinar, *Function of Scientific Teaching*, was held on June 26, 2021 and included an example of using the technique *eye contact*, along with the protocol *eye contact before talking*. The final session #8, held on August 14, 2021, featured the resolution of unknown errors in

the adult personality by using the technique *imagination-previousing*.

Each one-hour session was held on consecutive Saturdays, at 7:00 PM, ET (USA), offering a variety of images, video, examples, and live discussion, focusing on such topics as "Talking with Children" and "Resolving Misbehavior". Lee emphasized that an important part of the webinar was a special "home study report" he includes after each session for "websters" (webinar participants) to practice what was learned at home or in classroom with children.

Since each session is recorded, re-broadcast is possible and offered throughout the webinar on the basis of interest. Lee notes that, "Many websters especially appreciated tuning into these re-broadcast sessions to improve and reinforce learning gained from their original presentation".

Between sessions, many websters were also able to refine their study of the various technology topics by referring to the 41-page *Danbury Study Guide* that is coordinated with the webinar content. In addition, Lee provided other supplemental publications for study between sessions as well.

This most recent (third) webinar was broadcast through the well-respected Cisco Webex platform to assure the best quality possible to display the various images, videos and other technical aspects of the presentation. Lee says, "Future webinars will use these well-formatted recordings as part of their presentation, along with live discussion with websters on the various topics as well."

The 'pandemic' forced me to create this remote webinar format to present the technology, since live, in-person workshops were less possible. So, here is a silver-lining to the pandemic, since the webinar has made this specialized technology now available in places around the world where it would otherwise be unavailable or highly inconvenient to obtain".

IMS issues a certificate of completion of this webinar, valued with a maximum potential of 15 hours of IMS approved continuing education. Stay tuned to IMS for announcement of future webinars, featuring the "Technology of Scientific Education." IMS website: <https://imsmontessori.org>, Email: havis@imsmontessori.org



Ditas McHugh and teacher with children at the Montessori School at Old Field in Setauket, New York. Celebrating the birthday of Maria Montessori.

Montessori School at Old Field in Setauket, New York

The Montessori School of Old Field in Setauket traces its history back over 24 years, when it was first established by **Bernardita McHugh** in Amityville, NY. Back in 1997, Bernardita (Ditas) set up her first school, which started in a storage room of a local Synagogue. Then, under the name, *Maria Montessori Children's Center*, the storage space was quickly converted into a classroom for a beginning enrollment of five preschool aged children.

Since its beginning, the school has gone through many changes, including new locations in Greenlawn and in Setauket, each one with a different name, *South Shore Montessori School*, *Star of the Sea Montessori School*, and *Little Bay Montessori School*. Now, all these schools have merged and are known by the current name, *Montessori School at Old Field*.

Over the years, Ditas has enjoyed the support of her growing (and changing) family, now with her current husband, Shawn, and children Caterina, Alessandra, and Joshue, who all participate in the school endeavor. The Old Field School is located in the Marco Smith Building, owned by the Caroline Church of Brookhaven. Ditas points out this location and surrounding village as filled with American colonial history, and which was also an important site in winning the American Revolutionary War. She says the school itself is on "a lovely, quaint property, surrounded by ancient trees and is adjacent to a nature preserve, the Frank Melville Memorial Park."

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Evelyn in Nigeria

On August 3-5, 2021, **Evelyn Onyekonwu**, IMS student in Nigeria, participated in a conference sponsored by *Revive Tech Montessori (Dr. Isioma Thomas, Dir.)*, held in her native city of Asaba, Delta State. In her presentation, Evelyn spoke about the IMS technology, giving examples, such as the technique *eye contact*, looking at the child in his eyes, with no negative judgmental expression.

She further mentioned the IMS protocol, *least amount of adult involvement*, noting the caregiver's role to observe the classroom environment, and only give a particular instruction with materials when the child shows a "green light" signal of interest in some specific piece of work. Evelyn also emphasized the importance of less talk to reduce the danger of too much adult involvement that can lead to personal struggles.



Leaders of the Nigerian Montessori conference. (l to r) Mrs Chioma Ojo, Dr. Isioma Thomas and right Evelyn Onyekonwu



Function of Scientific Teaching

by Lee Havis

"The teacher...has many difficult functions...She must acquire a precise knowledge of the techniques...for dealing with the child."

Dr. Maria Montessori
from *Discovery of the Child* p.150-51

Ever since Dr. Montessori discovered the child's true nature in 1907, parents and teachers have been asking "How did she do that?" Answer: scientific teaching. But "How exactly do you do that?"

Sadly, the actual function of scientific teaching has been hidden in the mist and clouds of a great mystery until just recently. And even now, this approach is hard to practice because it is so different from the conventional way of teaching and thinking about children and reality.

Conventional Teaching

"To dominate the child, to bring him into subjugation, to make him obedient – this is the basis of education."

Dr. Maria Montessori
from *Spont. Act. In Ed.* p.29-30

For thousands of years, human civilization has been using force to dominate and control children to fit them into the surrounding demands of the prevailing adult society. And, sadly, this basic type of education continues as the norm of conventional teaching practice today as well.

Only in the 1800's did a significant alternative to this conventional teaching begin to emerge when two French physicians, Itard and Seguin, started an experimental way of observing children in their free activity; a new type of teaching that came to be known as *scientific education*. In the early 1900's, Dr. Maria Montessori took up this same approach of scientific teaching to conduct experiments with children in her native Italy in an environment she called a "Children's House".

First "Children's House"

"The environment in which the first Children's House had their origins must have been extreme favorable since the surprising results obtained during those first years have never again been equaled."

Dr. Maria Montessori
from *Discovery of the Child*, p.37

Dr. Montessori's original idea was to use scientific education to contrast its results with conventional teaching of school-aged children. However, had her experiment been conducted with such older children,

she most likely would have hired a trained conventional teacher, and so never have made the world-changing discoveries she actually did.

Happily, by fortunate accident, Montessori was given poor preschool aged children in her first Children's House. So, she was free to select a humble, untrained teacher more suited to function in the pure, scientific manner required for observation to bring about the child's true nature. This amazing result emerged in each child's experience of "normalization" which came through deep concentration on work with one of the Seguin materials.

However, in her effort to understand and explain exactly how this normalization occurred, she had only the general idea of Seguin's scientific education, which was something vague and undefined, and therefore hard to reliably duplicate in practice by others.

Something Vague

"Scientific education...is something vague ...mere intuition or suggestion of a science which...must emerge from the mist and clouds that have surrounded it."

Dr. Maria Montessori
from *Montessori Method*, p.1-2

As news of Dr. Montessori's discovery spread around the world, parents and teachers, as well as public officials and political leaders, eagerly sought her advice and guidance to achieve those same results elsewhere with other children as well. Dr. Montessori, however, could only offer general advice about scientific teaching, to observe the children as they freely came to concentrate on the Seguin self-teaching materials. And, this was simply too vague and indefinite for any effective, scientific practice.

Dr. Montessori nonetheless set up a teacher training course, in which her primary focus was the presentation of Seguin self-teaching materials. Beyond that, she instructed teachers to wait and watch for each child to concentrate with one particular piece of work, which would then somehow bring about the child's normalization and return true natural being. This was the teaching approach that soon became known as the Montessori Method.

Montessori Method

"My method...I feel very uncomfortable discussing...for I have not evolved a method of 'education'."

Dr. Maria Montessori
from *Education and Peace*, p.16

After 1907, Dr. Montessori spent the rest of her life training teachers in the Method that still bears her name. So, in this way, over a period of over forty years, she acquired a loyal body of followers, even though her Method was largely dismissed and ignored by the wider world of official education.

After Dr. Montessori's death in 1952, there was a resurgence of the Montessori Method, which was soon being offered and represented by many different personalities and organizations using their own brand of instruction and

certification in the field. In this exhilarating, but confusing era of the 1960's, I began my own frustrating and painful experience and study to learn and practice this Method with children. In time, however, I came to unlock the mystery of scientific teaching at the heart of the Method, a sudden and unexpected experience that arose as a framework for observing the individual child.

Individual Child

"...starting from the individual study of the child educated with our method, other educators will set forth the results of their experiments. These are the pedagogical books which await us in the future."

Dr. Maria Montessori
from *Montessori Method*, p.373

In 1979, while in the role of training Montessori teachers, I suddenly discovered how scientific teaching allows the child's true nature

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Moment of Peril

by Lee Haviv

Splashing like Pigs

The problem is that your two three-year old children, Walter and Gina, are splashing like pigs in a big mud puddle (See *Observer*, May, 2021). What to do?

Analysis: While a little splashing in a mud puddle is harmless, sensorial activity, the extreme of “pig-like” splashing becomes a “social conflict” misbehavior scenario that you must address, especially if the children are rolling around and throwing mud on each other. With the two children involved here, although there is no clear “hub” child, the situation certainly has all three elements involved as detrimental; i.e., other children, adult personality, and physical objects (mud-water).

Practical Advice: Begin by approaching the children, using the technique *proximity*. Although the “adult personality” is detrimental here (as always!), focus instead on the disorder in “other children” first, since that is the most direct point for effective intervention. Don’t worry which is the “hub” child, because the child who is less involved in the misbehavior, the “other child” will quickly reveal himself by being the one more receptive to your interaction.

If neither child looks up at you when you are close, touch or hold one or both at the same time to get attention (technique: *distraction*) until one of the two looks up at you (*eye contact*) which is then the “other child”. To this child, say “Take my hand” and lead him out of the mud puddle. If neither child looks up, just continue using the *distraction* technique by holding or touching one or both of the children to reduce the intensity of the physical activity, until you finally get attention from one or the other.

Since a mud puddle is such an “attractive” activity for young children, you may need to watch carefully to control any negative projection of your “adult personality”, especially if the children resist your interruption with words and behavior. For this, practice the technique *patient waiting*, along with the protocols *present moment*, *eye contact before talking*, and *no negative attention to misbehavior* (Don’t say “No” or “Don’t!”).

If one of the children tries to provoke an “argument” with you about staying in the puddle, such as by saying “We’re just having fun” or “We don’t mind the mud”, keep your mouth SHUT!. Just practice *patient waiting* along with *repetition*, and *distraction* (touching-holding a child to get attention). [Remember: the *present moment* protocol teaches that you can’t change what has already happened before. Cleaning the muddy clothes is something for the future!]

With your persistent distraction and active involvement with the children in the mud puddle, pig-like splashing, the situation will change, as one or both of the children takes an interest in something else you point out about reality in the present moment. So, after a child takes your hand, you can add a further safe word, such as “Come over here. Let me show you something.”

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to emerge. The framework I discovered consists of an individual “hub” child surrounded by an environment made up of three specific components: (1) physical objects, (2) other children, and (3) adult personality. Using this framework, the function of scientific teaching then becomes conducting a series of experiments to remove disorder in the three components around the “hub” child in question. When all the disorder is removed, there is only left the influence of laws of nature around that child. And it is this new “scientific” environment committed to laws of nature that allows the child’s true nature to fully emerge of itself.

Even within this simple framework, however, I soon realized that scientific teaching still has a number of serious practical obstacles to overcome. For example, you must learn to sense the “hub” child as a spiritual “unknown entity”, which is a very difficult thing to do.

Unknown Entity

“...all or nearly all, see the child as he is commonly known only, not the child as he is, still an unknown entity.”

Dr. Maria Montessori
from Formation of Man, p.258

In the individual child framework, you don’t actually see the “child” at all, but rather a cluster of energy, with the child at the “hub” in the nature of an “unknown entity”. This is difficult to understand, because the ordinary habitual way of observing a child is by his physical body or personality instead. To adjust to sensing only an “unknown entity”, try imagining the child’s brain full of cotton wadding, so that what you think is the child you come to recognize as a mental projection of your own adult personality. However, even with this more correct sense of the child, the problem of scientific teaching still remains a task of removing obstacles in his environment.

Removing Obstacles

“The teacher’s happy task is...removing the obstacles, beginning with those which she herself is likely to present (for the Teacher can be the greatest obstacle of all).”

Dr. Maria Montessori
from Spont. Ac. In Ed., p.264

In conventional Montessori teacher education, you only get a general view of the environment, rather than what is specific to an individual child. So, in the sense, the environment is primary focused on the Seguin self-teaching materials, which you are instructed to present in a neat and orderly manner to children. While this helps remove obstacles from the “physical objects”, the more complete function of scientific teaching requires removal of obstacles in the “other children” and “adult personality” as well.

So, while the Montessori Method is mainly focused on giving lesson presentations with the Seguin materials, scientific teaching refers to “lesson presentation” as an experiment to remove obstacles in any of three components around the individual child in question.

Lesson Presentation

“The teacher must not limit her actions to observation, but must proceed to experiment...the lesson corresponds to an experiment.”

Dr. Maria Montessori
from Montessori Method, p.107

With the individual child framework, a lesson presentation is ANY experimental interaction you conduct to remove disorder from around the “hub” child. There are three basic types of lesson presentation: (1) resolving misbehavior, (2) sensorial, and (3) nomenclature. While the “sensorial” and “nomenclature” types are common and well-known for presenting materials in conventional Montessori teaching, the “resolving misbehavior” type stands apart, and is not generally recognized as such in the field. Nevertheless, it is by far the most common and necessary type of lesson presentation for the effective practice of scientific teaching.

The “resolving misbehavior” lesson presentation aims to address harm or abuse to objects or children in the environment. In using this lesson presentation type, by far the most difficult obstacle in the environment to remove is the the “adult personality”.

Adult Personality

“The lesson must be presented in such a way that the personality of the teacher shall disappear.”

Dr. Maria Montessori
from Montessori Method p.108

Removing disorder from the “adult personality” involves correcting and controlling an elaborate network of inner flaws and defects, which emerge with children as various projections of abandonment and negativity. These outward projections on children are especially evident and problematic in the typical “power struggle” conflict situation.

Even with the benefit of the individual child framework, resolving these “personality” projections is very difficult without specialized practical tools and guidance for their effective control. So, soon after 1979, I began conducting a series of workshops to help teachers gain the necessary practical tools. In addition, I entered into other forms of personal corrective learning as well which, in 2003, led to a complete, comprehensive body of practical guidance in this field, which I refer to now as the “*Technology of Scientific Education*”.

To address disorder in the “adult personality”, for example, this technology includes a set of “safe words” to help you avoid using such harmful language, such as “No” and “Don’t” with children.

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In addition, one technique, *patient waiting*, is especially effective to apply when you are struggling to control harmful personality projections with children.

Patient Waiting

"The teacher must be quiet and passive, waiting patiently and almost withdrawing herself from the scene, so as to efface her own personality."

Dr. Maria Montessori
from *Montessori Method* p.173

The technique *patient waiting* directs you to stand still and quiet as you maintain an alert awareness of everything happening around you at that time. In this way, tension, fear, and confusion tends to disappear as you return to a calmer, more objective state of mind. This and other techniques, protocols, lesson presentations and safe words of the technology give you the tools you need to make great progress in your effective scientific teaching with children.

Progress

"True progress consists in the discovery of something hidden...one who tries to bring it to light is frequently persecuted."

Dr. Maria Montessori
from *Discovery of the Child* p.16

The search for true peace, order and harmony in the world has been slow and difficult over thousands of years. So, human suffering and misery has continued its long-standing reign over mankind due to its unknown and hidden origin within the human personality.

Only in recent time, has there been significant progress in the effort to find the cause and scientific solution to the core problems of humanity, which most significantly began with the study and observation of children by Itard and Seguin in the 1800's. Later, in

1907, Dr. Montessori made another giant step in scientific education by applying this scientific approach to ordinary young children, which led to her amazing discovery of the child's true nature.

And now, yet further progress has taken place with my own discovery of the individual child framework and in 2003, a breakthrough technology for its effective practice with children. The next major step of progress in this field now awaits the wider function of scientific teaching that will surely come as this technology is applied to a wider number of children. Only then will the world begin to see and experience the reality of a new and better humanity, which Dr. Montessori envisioned would emerge from her original discovery of the child's true nature in 1907.

Messages to IMS

August 31, 2021

Hello, Lee:

We still use your format of technologies to teach our amazing staff at Edinburgh Montessori Arts School.

It was a great weekend (Sterling, Scotland, July 2005). Really made an impression on us all. ... Your workshop about classroom management where you had three scenarios drawn on a whiteboard and asked us which children we would attend to first - that really stuck with us and we use this example when working with our staff team. Our school was only 3-6 at that time. We now have 1-18 year olds :) I still teach about the hub child and how to move others from around them - I always credit you!

Emma Rattigan - Edinburgh Scotland

Moment of Peril

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If the other child stays splashing in the mud puddle alone for awhile, that will soon end as you have the other child move away from the conflict and focus on something more positive to do at that time.

Throwing Things

Three year old Jonah, after working on a pegboard apparatus with many pieces, suddenly throws them all around. Since this pattern of throwing things seems to be repeated with many different pieces of work, the teacher is especially frustrated to find a resolution. What to do? Answer in *Observer*, November, 2021.

Old Field School in Sektauget

Cont'd. from Page 1, Col. 3

The Old Field School provides programs for children ages 3-9+ years, in space with all the customary self-teaching materials to assure each child's free and independent intellectual learning activity. The program also offers Italian as a foreign language, Suzuki Violin, and Catechesis of the Good Shepherd. Ditas states that in addition to the Montessori materials, the school depends on a supportive family environment and "By nurturing children as individuals, we seek to develop confidence, intellectual growth, creativity, and a joy of learning."

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