Smart Moves, Why Learning Is Not All In Your Head: A Montessori Companion PDF
by Lisa Nolan and Carolyn Wilhelm
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Smart Moves: A Book Review Part One (Chapters 1-5)

The Montessori on a Budget Facebook group has a book club and the January 2016 book is *Smart Moves, Why Learning is not all in Your Head* by Carla Hannaford. This post has a few of my favorite quotes and thoughts from chapters 1-5, which we discussed online last Friday. *Smart Moves* was actually first published in 1995, but has since been updated as new research has been made available. It is amazing how well this book fits with Montessori learning! Carla Hannaford has a PhD and has provided facts and details to help everyone understand why “locked ocular” learning (staring) is not actual learning, and why the body much be engaged. This one fact explains why electronics and traditional teaching methods do not provide much learning. Learning needs to be active and hands-on as in the Montessori Method. She recommends children not watch TV until age 8. Children should be active (not passive) participants in their learning. Learning does not happen only in the brain as many people assume.

The author explains how the brain develops beginning with birth and presents information about how the senses work together. Adults sleep with their dominant ear down for best sleep unless in an unfamiliar location where they may need to be alert.

Babies sleep with their dominant ear out as hearing helps insure their survival. I had not been thinking about these facts lately, but with a new grandchild on the way I found it all very interesting and true.

Touch is the major contributor to full understanding in vision. Children want to touch and feel everything, and the reason why is it helps them to fully understand. Montessori allows for touch and helps children learn in a brain-based way. And more than simple touch, the physical movement with activities such as pouring really allow the child to learn naturally and well.

“Movement and play profoundly improve . . . learning”, according to Dr. Hannaford. They also help people be creative, manage stress, and stay healthy. So important for our children!

It was amazing to learn there is much research showing the brain is actually regulated by the heart. The scientific information is covered in the book, but most people think the brain regulates the heart and everything else. I did! This has implications for teaching and learning as the teacher’s electronic heart impulses radiates out many feet into the classroom. Children pick up on such things and respond with their own feelings.

~Carolyn Wilhelm of Wise Owl Factory
Smart Moves: A Book Review Part Two (Chapters 6-12)

This post has a review of *Smart Moves: Learning is Not All in Your Head* by Carla Hannaford PhD regarding chapters 6-11. This is also for our online book club. It is difficult to break this book into sections, and I really want to post the entire book as it is so enlightening. This book supports the Montessori Method in so many ways. *Note: See also the review of chapters 1-5. Recently there has been a “Prince George” effect causing a surge of interest in Montessori education as Prince George is now attending The Maria Montessori Institute in London. I think there should be a surge of interest from reading *Smart Moves*, too!*

Chapters 6 and 7 are about the importance of movement to the learning process. The author shares many studies and research information to prove the point that movement is not subservient to thought. She cited studies of including a few minutes of controlled movement activities such as Brain Gym, walking, and exercise classes increasing academic test scores. So often it is thought that movement is not helpful for serious learning, but it is according to the author. It is so important two entire chapters full of research and proof are included in the book.

I saw myself in the book, so I have to mention it. When I am in class, I have to take notes. If the notes are provided in the handout, I still have to take notes. I almost never need to look at the notes later, though. It is the movement of my hand that allows me to remember the thoughts. “...to remember a thought an action must be used to anchor it.” Taking notes involves movement. Many people find “talking” anchors “thinking.” Teachers often use the “turn and talk about what we just learned” strategy to help students remember information. Talking is movement that can anchor learning. Children naturally start talking when they are learning something, and we need to try to refrain from telling them to be quiet all the time. Many adults do the same thing. Sometimes we think students or our children are being disrespectful when they are just naturally learning and trying to remember.

Think of how Montessori tray carrying, rolling out the rug, finding a learning spot, and preparing for learning incorporate the need for purposeful movement and help prepare the brain for learning. The author states, “Many of us have a distinct tendency to think better and more freely while engaged in a repetitive, love concentration physical task.” Thinking time is built into the Montessori method!

Much eyestrain comes from foveal focus (close work) and in Singapore, children used to begin writing work at age three or four. By the age of ten almost 100% of the children needed glasses! This is informative for our work with children. Singapore education has changed to include play and manipulatives with better results for the children’s vision. Again, Montessori teaches with manipulatives in the first place. Amazing foresight on the part of Maria Montessori, no pun intended.

Additionally, everyone needs clean water and air to best learn. Student need to be hydrated to be able to learn. I used to tell my student to keep their dendrites hydrated at break time. People are the least thirsty when dehydrated. Water is involved with electrical activity in the body, how oxygen is distributed, and in nutrition. Good nutrition from food is also essential for learning. The author goes into detail on this subject.

The book provides facts to explain why stress can inhibit future learning. Children need to feel safe at home and in class to best learn. Many facts in the book support how stress detrimentally affects possible learning. The author says to think of how we feel after a scary movie or event, and that it takes awhile to
relax. Some children live with chronic stress and therefore chronic learning issues. Imagine that situation from the student’s viewpoint. It is so important for all of us to understand this issue.

~Carolyn Wilhelm of Wise Owl Factory
Smart Moves: A Book Review Part Three (Chapters 13-15)

Did you know Einstein was left handed? This fact is shared in chapter 13, along with the information that forcing right handedness can lead to stuttering. I remember more people stuttering when I was growing up than I see now, and I’m thinking they used to force right handedness so much more. The author explains dominance profiles — about being right or left brained, right or left hearing dominant, right or left eye dominant and provides examples of how it affects a person. She was right on the button for me! Scary! However, this is so important for us to know about ourselves and our students.

Heather Goodmanson is a third grade teacher in Hawaii. She had her students figure out their own dominance profiles. The students organized themselves according to their easiest sensory access such as right ear dominants on the left side of the room. This helped all the learners in the class. They also did Brain Gym exercises five minutes a day. The class had their highest academic scores that year. The author says this was simple, but why aren’t more schools using these ideas? Of course, this would work at home, also. Some children pay better attention not looking at the teacher, but by tilting their dominate eat in that direction. Although I did use Brain Gym with a fourth grade class, I’m sure sitting by dominance profiles would have had a great benefit. I have never heard of these ideas before reading Smart Moves. Want to pin for later?

The author is against labels, as I have mentioned before. However, in chapter 14 goes in to detail about how drugs are misused. In fact, there is damaging evidence against Ritalin. Maybe it controls some behaviors but research shows brain shrinkage in adults labeled ADHD who took it for years. Maybe football isn’t the only cause of brain changes. People who take Ritalin can also be more prone to Parkinson’s disease in later life. The cure? You can guess, more movement. For homeschoolds, this would be easy to implement.

Chapter 15 is about other countries and other school systems models we can learn from to improve our own schools. Dr. Hannaford describes these methods and explains what future learners will be like. She is an advocate of unstructured play. I’m so happy to see any posts online that say children need recess. They simply do!

Danish schools begin at age seven, and children are not tested until age 14, for instance. The author visited Danish schools and witnessed students being honored for thinking skills, imagination, and communication skills. Curriculum was developed at the beginning of a quarter using a democratic process involving teachers and students. Currently, teachers in the USA are too bound to standards to be able to try these methods. She visited other countries and shares other information about positive ways to improve learning for all.

The author ends the book by saying that something “. . . this simple and natural can be the source of miracles.” We have been looking for answers in all the wrong places! Who knew?

It has been a fascinating read, hasn’t it? If we could all have access to more exercise and play, more schools could be much better places. The next book for February is: You Are Your Child’s First Teacher, Third Edition: Encouraging Your Child’s Natural Development from Birth to Age Six. See also the review of chapters 1-5 here, and the review of chapters 6-12 here. Pin for later here!

~Caroly Wilhelm of Wise Owl Factory
LISA NOLAN OF MONTESSORI FOR THE EARTH: I was fascinated by the author’s discussion of the vestibular system! I have heard about it before, but not in my Montessori training. I read that developmental delays (in the vestibular system) can cause babies to feel like they are floating (ungrounded) when trying to fall asleep, and it’s one of the reasons they need to be held, rocked, breastfed, and or bottle fed before falling asleep. Vestibular system, chapter two, pages 34, 37, 40, and 41. It reminded me of Montessori’s Walking on the Line. Walking on the Line is a large motor movement group activity that includes music and movement, and a line to move on. Do you know how Maria Montessori got the idea for Walking on the Line? By observing children in various rural farm communities walking along fences! I learned about Walking on the Line in my Montessori training.

Handis Rodriguez: I was really interested in the fifth chapter. I have been working at home and have started to use television as an easy distraction for my toddler since we just moved into a new home and I have not set up everything. Now she is asking for my phone and TV more than usual. I have to nip this bad habit in the bud, but I don’t know how to do it yet.

The fifth chapter really helped with guidance on what to do to increase play with my toddler.

CAROLYN WILHELM OF WISE OWL FACTORY: I loved all the continual proof which supports the Montessori Method! I am going to become a grandma next week or so and will be thinking about all this while I see the baby grow.

Handis Rodriguez: I have the kindle version. I just read that SSR is used as crowd control. I’ve read a different study that does shows the benefits of sustained silent reading (SSR). I appreciated the authors request that children should speak more in the classroom, but don’t downplay reading in schools. I will make sure to use more dialog when speaking with my toddler, though. Loving this book!

CAROLYN WILHELM OF WISE OWL FACTORY: I always though SSR or “drop everything and read” was a waste of time and never used it much validation! Love it! I loved the many studies and facts showing “locked ocular learning” (staring at a teacher or TV) is not actual learning.

The author says use crossing the midline activities for increased learning. Though theoretically taking in all the information necessary to learn, still the stressed learner has difficulty assimilating and integrating new information to actually learn it, remember it and appropriately apply it to his or her life. Brain Gym® and other movement, like walking, dancing, skipping, twirling, Tai Chi, Yoga, and even rough and tumble play appear to contribute the minor adjustments necessary to enable the system to proceed with the learning process. Quote from book.

Carolyn to Lucento: Of course, I end up zeroing in on the mere mention of MAKING MUSIC because I am convinced that it enhances all areas of development and we already have so many studies that link it to increased connections happening in the brain! I love the personal stories of the children the author has nurtured in her everyday work world. A number of years ago, I started amping up more music in my Montessori preschool classroom. Every circle time was filled with song and always lots of movement to go along with it. We also regularly practiced making music together with various rhythm instruments. After a year or so, my co-worker and I both began to comment on how bright these groups of children were. We both really saw a difference in their learning abilities and academic skills developing. The only significant difference in our routines (we’d worked together for a number of years) was our recent
addition of much more music making. We would joke about it, but we were both convinced that the music emphasis was causing the children to be smarter! (Secretly, I am absolutely certain that was the reason!)

CAROLYN WILHELM OF WISE OWL FACTORY: Music does really help learning! That is wonderful information about your classes. I have often taken notes in class that I never look at again. I wasn’t sure why, but I remember the information if I take notes I never read. If I don’t take notes, I do not remember. They author explained why this works --there is no learning without movement. Here is a quote, “Actions such as doodling, eye movements, speaking aloud to oneself or to others, writing things down, are familiar movements that occur during thinking. Without movement of some kind, you don’t get conscious thought. The final outcome of this process is meaning.” Fascinating, true for children and adults. If the teacher says I typed up notes so you do not need to write, I still have to write. There is a reason.

Carolyn Lucento: Montessori pointed that out (I’ll have to look up where exactly). She wrote that the hand is connected to the mind. In her Montessori schools, they would read aloud from great literature to the children. While this was going on, the children were given paper and art materials to doodle while listening!

CAROLYN WILHELM OF WISE OWL FACTORY: “And in Denmark, it is mandated by law that every school child and working adult be able to see nature from their seat or workspace. Every building in Denmark is full of windows.” Lovely fact in the book!

I like the statement in labels: “labeling leads to oversimplification and insensitivity to the very real, very unique people behind the label. Sadly, in some ways we have trapped these children—and adults—in a diminished view of themselves and their potential for learning. In light of the amazing resiliency of the human body/mind system, I propose that we hold off such a judgment until a person has completed their learning, which will take a lifetime.” In other words, no labels: just take care of each student. If only!

Malnutrition is as bad as TV and pressures according to the author, “Some, like malnutrition are well known inhibitors of learning and health. Others, like TV, competition and educational expectations exert less visible but no less serious influences on learning.”

Yanique Chambers: Denmark seems to have figured out how to do it well. Nature is the greatest classroom so why not spend as much time in it or admiring it?!
Montessori Topics that Relate to Topics Discussed in the Book

Montessori topics that relate to topics discussed in the book:

- Vestibular system (chapter two, pages 34, 37, 40, and 41) and Gross Motor Movement and Montessori’s Walking on the Line
- Sensory learning (chapter three, page 54) and Montessori, which begins with sensorial, concrete, hands-on experiences (The Absorbent Mind) that become the foundation for abstract learning including reading.
- “Learning by Imitation” (chapter four)
- “Early truism” (chapter four) and Montessori’s Practical Life and Care of the Environment
- “Early truism” (chapter four) and Montessori’s Social Grace and Courtesy
- Left right brain connection and cross lateral movements (chapter five, page 91 and 92) and Montessori Practical Life activities that involve crossing the mid line
- “Writing cursive” (chapter five, pages 95-97) and Montessori and writing cursive
- Waldorf and reading (chapter five, pages 94-95) and Montessori’s approach to reading
Absorbent Mind: An excerpt from *COSMIC EDUCATION* by Ursula Thrush

The absorbent mind has three components: 1) an unconscious, 2) a subconscious, 3) a conscious part.

**Unconscious**

The unconscious is the driving force that urges a person onward and can be useful for survival. In a small child it is classified as curiosity.

**Subconscious**

The subconscious is that which is being constructed through experiences which follow the promptings of the unconscious, and it also receives the impressions from the unconscious.

**Conscious**

The conscious is that which is also being constructed, but only those parts of the subconscious of which that child becomes aware.

A person’s development begins at conception and lasts until death. During this time she is trying to find and fulfill her purpose. Contrary to animals, she is not born with a fixed and limited range of being. She has to become whatever she is going to be: she has to create herself. It takes a human 18-25 years to become independent and mature (relatively). This means that THE CHILD CREATES THE ADULT. This depends on the child’s earliest experiences as to what kind of adult she will become. The child then is in a continual state of growth and metamorphoses.

The baby has an inner urge that commands her to go on and construct herself, to build a language, to coordinate movement, and to build an adult-to-be. We must constantly bear in mind the fact that the growth of a child from birth to maturity is like that of a butterfly versus an oak tree, which just gets bigger. The child’s growth has to go through different types of developmental stages at different periods.

From birth to six is the stage of the absorbent mind. This is the type of mind with which the human baby, shortly after birth, starts taking in and absorbing the environment in which he finds himself. This is very different from the adult mind. The absorbent mind is a mysterious unconscious kind of mind which receives and incorporates in itself, each and every impression which is offered by the environment. With the help of the absorbent mind, the child not only creates herself, but because of it she becomes a person of her time, her space, and her group.

Since she absorbs the social customs, traditions, attitudes and the language spoken by the group which surrounds her at birth, she is a perpetuator of the characteristics of that particular group. The absorbent mind thus forces her to adapt whether she wants to or not, that is, without the individual willing it or having a choice in the matter.

At birth and during the first period of the absorbent mind, the child had no conscious will, nor any real mental consciousness of herself. She is precisely in the process of creating all this--consciousness, will, and memory. This period is divided into two subdivisions: 0-3 years--the unconscious period, and 3-6 years--the conscious period.
**Birth to Three Years**

In this period the mind is constantly absorbing impressions without knowing that it is doing it, or willing it. Since the child incorporates all these impressions, it is a period of creation, for at birth what exists is the will to live and the individuality has to construct itself.

Montessori asserts that in those first few months before the child is able to move, she takes in the whole environment, not with her mind but an accumulation of materials, impressions, activities, etc., which she will later build up her conscious life.

The passage from unconsciousness to consciousness is accomplished through movement. She does it by the use of her hands, using them as the instruments of human intelligence. By touch she brings into consciousness what her subconscious has absorbed already. The absorbent mind incorporates these impressions into the personality of the individual like on a photographic plate. Everything is there, right down to the smallest detail. Just as a photographic plate can show a picture of one item or an entire picture full of items, in the same way the absorbent mind captures the environment.

The child absorbs language long before she is able to make sounds, and at six months when she has achieved the coordination of movement of the muscles of the vocal cords she begins to make sounds which are the elements of the words to come, words of language spoken around her. She eventually reproduces the language of her group down to the smallest inflection which is something one cannot accomplish in later years.

She gains equilibrium and at six months she can sit, at one year she can walk and move around like everybody else does. At six months also, her prehension (seizing and grasping) becomes purposeful. Now she can grasp the things she could before only see; she receives concrete sensorial impressions of touch. In the same vein, she will reproduce the emotions and vibrations she is born into, no matter whether they are good or bad. this is the period of creation.

**From Three to Six Years: The Period of the Conscious Mind**

This is the period of perfection of the facilities created during the previous period. It is still the same type of mind which absorbs and thus learns effortlessly, but now it has become conscious. This is now a period of conscious construction by consciously taking from the environment.

Up to 5 or 6 years the child is endowed with the facility to learn without conscious effort. The difference is that starting around age 3, she begins to want to learn. She wants to explore, she wants to imitate, she wants to adapt. She explores with her hands and her senses, and whatever impressions she receives are absorbed by the absorbent mind and go into the subconscious. These become key experiences for later abstract classification. Thus, through practice and repetition the child perfects the coordination of her movements. By exploring the environment with her hands and other senses, she becomes conscious of them and refines them. And now that she is able to speak, she is eager to explore and improve her language by learning more words and names of things and their exact meanings. The rhythm and order of things which she absorbed during the first period, she will express by being orderly herself or disturbed if this rhythm and order is upset.
Montessori’s Walking on the Line

Walking on the Line is a large motor movement group activity that includes music and movement, and a line to move on. Do you know how Maria Montessori got the idea for Walking on the Line? By observing children in various rural farm communities walking along fences! I learned about Walking on the Line in my Montessori training.

At our Montessori preschool we practiced “walking on the line” each day. We saw the benefit, not just for each child, but for the classroom as a whole: more body awareness walking around tables and rugs, increased large motor development, phonetic-reading readiness, and a level of classroom calmness, yes, calmness!

Most importantly, children learned how to walk heel to toe, hop, jump, skip, and run. The children walked on a straight line that was built into the wooden floor; they sat in chairs and waited for their turn to “walk on the line” either heel to toe, to slow music, or walk and carry a tray with a small cup of juice... which they would sip after their turn was up (and they were sitting down). Then, every few months, it progressed to: 1) jumping with both feet, 2) hopping on one foot, 3) skipping, and 4) running. Each movement had a different musical number that was played. It was a one- to three-year progression from walking to skipping. ?

Most Montessori classrooms have a line made of tape in the shape of an oval (ellipse) placed on a large rug, or carpet. In a home environment, you can also use tape and either make a straight line, or an oval (ellipse).

Some teachers have the entire class or group do their movements on the line, but in our classroom each child had a turn, one at a time, while the rest of the children watched. So you can decide what method works best for your children.

When we did Walking on the Line, we used a Montessori album, or record (now called a vinyl). It may not exist any more, but you can get a Walking on the Line CD: The Walking on the Line and Rhythmic Activities on the Line CD from Montessori Services $20: “features 20 minutes of quiet piano music, developed by Montessorians Sanford Jones (founding president of NAMTA and former Executive Director of AMI/USA) and Judy Jones (movement education consultant and teacher). The walking music is followed by tracks that capture the essence of each locomotor movement in sequence, isolating marching, running, galloping, skipping and processing; 12 tracks in all. Performed by Sanford Jones. From Youth Opera International.”

~Lisa Nolan, Confessions of a Montessori Mom
Movement and Independence: An excerpt from **COSMIC EDUCATION** by Ursula Thrush

The moment man is born he starts to move independently, and in order to reach independence he has to keep on moving. There are two types of movement:

- Movements of the vegetative system help man to grow and exist. This system provides for mental and physical well being and enables him to enjoy the best of health.
- The system of relations, on the other hand, puts man in touch and in relation with his environment.

The system of relations is a single unit even though it has three parts: the brain, the nerves and senses, and the muscles. Being a unit, it can become perfect only when set to work as a unit. Once again, we can observe the pattern of activity we have been following from the moment of the individual’s conception, through his embryonic development, and through the phases of his later development.

First, there is an immense concentration of energy and activity creating a need for the development of a certain organ or a tendency which then leads to a further stage of development. As soon as it is established and put to use it recreates itself on a higher level with the same interdependence of faculties, responsibilities, and potentialities to exercise itself, and through this exercise enriches itself with an experience which leaves an impression. It is a fascinating cycle in the form of a spiral leading towards perfection of independence. In this way, initially, need of an organ is created, then the organ itself, and that the ever-increasing excellence of the use of the organ—all this expresses itself all in one-way: movement.

First the transformation of cells, then the activity to ossify bones and mielinize nerves, and finally the visible cooperation of muscles and nerves such a degree that coordination of is achieved. Eventually the movement becomes willed by the brain which at this point turns it into a conscious effort to exercise and perfect a newly discovered faculty.

The first cry, the first flailing of the arms, in the first sucking motions are man’s official moves along the road to independence. They are also the signs of development, the very expression of the life spirit being present.

Watching a child makes it obvious that the development of his mind comes about through his movements. Movement helps the development of the mind, and this finds renewed expression in further movement and activity. It follows that we are dealing with a cycle because mind and movement are parts of the same entity. For example: once a child is able to lift its head, it will soon lift it intentionally in order to see more. Or once he is able to will his hand to be in front of his eyes he will do so purposefully for hours on end, and watch them move until he discovers he can actually grasp with them, which in turn leads in many more new discoveries which need to be studied and mastered. Key experience—the child realizing he can grasp. Once he does it willingly and consciously, he is grasping difference objects with different textures, which all lead to many different directions.

Each movement brings a new challenge—the challenge to his entire being. It starts at the center and goes through the whole system along the main channels of command.
Each challenge brings with it a new experience and each experience leaves an impression which strengthens and enriches the substance of impressions which are engrams, and which make up subconscious.

In animals movement is established at birth. Not in man. The human newborn is inert. Movement has to be formed and perfected by the child’s activity in the environment. However, unlike the animals, man is so richly endowed with muscles, that there is hardly any movement which he cannot learn to make. He achieves it through coordination of the movements of his muscles.

At birth all the muscles are uncoordinated and then nervous arrangement for all the movements he learns have to be built up and perfected by actions initiated by his mind. The stimulus always comes from the outside.

Throughout his evolution it was man’s feet which carried him all over the globe. But it was through his hands’ activity that he really became man--thinking man, man using his hands purposefully for a purpose.

This brings us back to an earlier statement that an animal’s movement is established at birth and a man’s is not. He has to establish it, and furthermore, the development of his movement is twofold:

- Movements necessary to express his vegetative life
- Movements necessary to express his creative or inner life

The first indicates to us that he is developing normally physically, while the second indicates the development of his mind. This takes care of the first of two-parts of man’s personality: the physical and the intellectual. However, we have to bear in mind that through the coordination of the use of two types of activities man is creating the organ of the third part of his being, the spiritual embryo. Forming the spiritual organs follows the same pattern as did the physical and mental development. On this realization Montessori based her educational method. It is the total obedience to the law of nature that helps the cosmic force; to unfold and develop according to the laws of nature, and by using the absorbent mind, the sensitive periods, and the tendency of man.

At two-and-a-half years the child comes to a Montessori environment. How do we help his development of movement and independence? First of all we help him with the prepared environment into which we have channeled activities which are key experiences to all the different facets of life. He is given the freedom to follow his inner urge in choosing among these activities: practical life exercises, cultural subjects, language, and math.
As teachers in a classroom, we learned early on effective ways to teach social, communication, and behavioral skills by using the Montessori method of practical life and “grace and courtesy.”


Exercises teaching grace and courtesy give the child self-assurance. She knows she can behave and act properly toward her fellow beings. Such exercises help her to imitate her peers and adapt to her group; and by doing so she gains independence. The technique of politeness sets the child free.

It is essential that all exercises be introduced with the greatest of accuracy; slowly, precisely, and in logical sequence. The grade of difficulty and the challenge of the task must be within her power to overcome. Start with the simplest movements and from this progress to more difficult ones. If the child is not ready for the task or has been shown incorrectly, her vain attempts will frustrate her. In that case the task should be presented again and again with the greatest of accuracy until the child is able to grasp and imitate it. Once the child has understood and is able to imitate, let her be . . . [and move on to the next skill in another lesson at another time].

It is essential to understand that the child is following inner impulses when she is doing these exercises, and that she is learning to build an ability to do a certain thing. (Not just to get a mirror polished perfectly.)

In order to get the children really and truly interested in their environment, it is essential that we as adults are truly interested in our environment, and that we keep it as beautiful and perfect as we expect the children to keep it.

Exercises in Practical Life fulfill the child’s need for independence. The child needs to adapt the need for a purposeful motor activity; and he needs to repeat that activity until he reaches perfection.

a. look at person and make eye contact
b. shaking hands
c. blow nose when needed
d. cover mouth when sneezing and coughing
e. saying please and thank you
f. say excuse me when needing to pass by
g. say may I borrow or can I have a turn
h. wait turn to speak
i. not speaking with mouth full
j. asking for help
“Preparation for reading and writing is... taking place during this period [the sensitive period for language] in more indirect ways.... and is part of the planned curriculum.... it may not be as obvious how such activities as scrubbing a table can contribute to the child’s readiness for reading and writing. All the practical life activities, in addition to improving hand-eye coordination and muscle control, are designed to increase the child’s ability to concentrate [and to also go from left to right, and from top to bottom].”

Montessori on a Limited Budget, Elvira Farrow and Carol Hill

“All [Practical Life] exercises are based on getting the physical coordination to learn the exact technique to do a certain thing.”

INDOORS Children will learn to love and respect their environment as they learn to work within it. A different relationship occurs when one works with or interacts with someone or something. As the child works to imitate his peers or adults in his environment he also learns coordination of motion, such as when scrubbing and polishing. These involve large motor movements, which are very therapeutic. They give feelings of accomplishment. Toddlers love water and need to be allowed to work with water: scrubbing, washing small objects and drying them off, pouring from one container to another, spooning, and so forth. Have extra dry clothes ready, and help the toddler to start learning to dress himself.

OUTDOORS The same holds true for the outdoor environment as for the indoor. Activities such as sweeping, watering plants, and weeding are substituted. Both of the indoor and outdoor activities can indirectly lead into such fields as language and botany.
Practical Life Activities for Crossing the Mid Line

OUTSIDE
- Cutting safe flowers
- Digging and planting seeds
- Flower arranging in a vase
- Raking leaves
- Sweeping
- Turning the compost
- Watering plants

INSIDE
- Food preparation and cooking
- Mopping
- Peeling vegetables and potatoes
- Scrubbing a table
- Stringing beads (preparation for lacing, sewing, weaving)
- Use of tongs
- Wiping table with a sponge

OTHER
- Beating a drum
- Block play
- Dancing
- Hitting a triangle
- Truck play
- Wand or scarf dancing
- Water play

“Toddlerhood is full of hands-on fun and exploring. Crossing midline activities are a great way to incorporate an important skill for development, as well as having lots of fun. Here are some fun ways to include crossing midline activities for toddlers.

“What is crossing midline? Imagine a line going down the middle of your body. Whenever your arms or legs cross that line to the other side of your body, that is crossing midline. This skill is important for all kinds of skills in child development, including reading, writing, and many other gross motor skills. For toddlers, practicing this skill is also something they do when crawling. It also plays a part in many visual motor skills and activities: the ability to visually cross midline with their eyes, being able to cross over with their hands or arms without looking etc.

“Children develop the large muscle groups first then work towards refining smaller muscle groups. So in order for a child to be able to cross midline in reading or writing later on in life, having a good foundation in crossing midline for gross motor movements is important.”

~Heather Greutman of the Growing Hands-On Kids blog
Introduction To Writing: An excerpt from COSMIC EDUCATION, by Ursula Thrush

Primitive man found language out of necessity. Reading and writing have been achieved by civilization, taking several thousand years to develop. How can we help a child’s approach to writing? By giving him an appreciation of writing. By the use of 26 symbols man can express his thoughts and transfer this magic to the child. The directress has the power to make teaching interesting and to show the child the magic and wonder. This she can do only if she is interested herself.

What is writing? The ability to express thoughts with written symbols. So, this is a gift for the children. They will be able to express their thoughts. However, you cannot put down anything in writing unless you can think logically, and you cannot write at all unless you have control of the instruments with which you are writing. You cannot write until you are able to analyze each sound and can translate it into a symbol. In the adult this happens simultaneously, but the child has to analyze it first. Writing, therefore, is a process of going from the known to the unknown. So, in order to prepare a child for writing we have to take into consideration his spiritual, his physical, and his intellectual development. The spirit of man urges him to communicate his experiences, and gives him the self-confidence to say what he wants to say at the right time and in the right manner. The self-confidence is gained through the free oral expression at circle time. The intellect of the child is being prepared. We contribute to this preparation with such things as talking, reading stories, and with such language games as I Spy, Question and Answer, The News Period, Classified Cards, and Nursery Rhymes. We discussed these during vocabulary development. This is the spiritual and intellectual indirect preparation.

Now comes the physical preparation. Physical preparation deals with movement. In writing, two kinds of movement are required. One is the handling of a writing instrument, and the other is the movement that reproduces the form of the letter. The preparation is on two levels always, indirect and direct.

The indirect preparation for the handling of a pencil are all of the exercises of Practical Life, such as polishing, pouring, etc., for coordination of movement. Also, the sensorial material, like cylinder blocks, geometric forms, and leaf cabinet, which have the little knobs to be picked up with the three fingers. Also, the pink tower and the brown stairs for grasping. The rough and smooth boards and the tactile tablets for the light touch. To develop the clean movement for reproducing the letters, we use the geometric cabinet and the leaf cabinet for tracing the outlines with two fingers. This leads to a clear cut feeling of the form of the letters.

Now, we come to the direct preparation. This includes three materials: the metal insets, the sandpaper letters, and the moveable alphabet. The metal insets give the child the physical ability to hold and manipulate the pencil correctly to sustain the light touch and control necessary for writing. This is the physical part of writing.

The sandpaper letters help with the intellectual part of writing, namely, to reproduce the movement in the shape of a symbol which corresponds to a sound the child has been aware of in the I Spy Game. Now these sounds become concrete symbols which he experiences with motor muscular movement.

The moveable alphabet aids in the spiritual aspect of writing. The moveable alphabet allows the child to express his thoughts even though he does not know how to write yet. The child has analyzed the sound which makes up word in the I Spy Game. He has absorbed their concrete forms in the symbols with the sandpaper letters. And, now, he recognizes these forms in the graphic symbols of the moveable alphabet.
With these symbols he is able to form words without having the ability to write yet. Then when he has acquired the physical ability to reproduce the correct form of symbol, he explodes into writing.
Montessori FAQs About When to Begin Cursive

I have many questions regarding teaching cursive letters. My three-year-old son is in a Montessori school now. However, the teacher is using print letters for teaching him. I personally want my son to learn cursive letters because I know it has many advantages. I have discussed this with the teacher, but she insists on using print letters. Is my son going to be confused because his teacher is teaching printed letters (ball and stick) while I’m teaching cursive letters? Any disadvantages to my son? Also, how can I start?

Developmentally, your three-year-old son might not show an interest in cursive letters, so be careful. The cursive letters are very abstract, more so than print letters (stick and ball as they are often called). And also, cursive letters are taught for writing. And remember, writing comes BEFORE reading in Montessori.

The window to begin writing is age four to five (and is highest usually at age 4 1/2 and is called “The Writing Explosion” in Montessori schools). That is when you want to teach cursive WRITING. (The child traces the cursive letter and writes it). So to teach cursive now has no meaning, no purpose, because of the age of your child. (And he will probably show little interest in cursive as a result.)

And why are children at age three learning letters (in print)? To build their muscular memory for writing these letters when they are 4 and 4 1/2 and 5 (called indirect preparation). Yes, they are learning the sounds that the letters make, to prepare for phonetic reading when they are 5, but also to spell using the Movable Alphabet when they are 4 and 5 (spelling also comes before reading).

Is learning the letters from tracing the sandpaper-letter easier than practicing them with a pencil?

Think of it not as what is easier or harder, but where the child is developmentally: Pencil writing can start at age 4 to 4 1/2, not 3 or 3 1/2: it could be very difficult for a three-year-old, and as a result, turn the child off to writing when he is older. Tracing letters is an “indirect preparation” for writing print, as well as learning how to spell with the Movable Alphabet, and phonetic sounds for reading at age 5.

How can I start cursive? If you are going to introduce cursive letters, let him MATCH them to the print letters that he already knows, since matching is more of an interest to a three-year-old. Let him match seven to ten letters at at time. You can also tell him the print letters will help him learn how to spell and read, and the cursive letters will help him to write.

~Lisa Nolan, Confessions of a Montessori Mom
The Case for Cursive (from Meadow Montessori): Penmanship

“A word is in order regarding handwriting. At MMS, we teach cursive and cursive alone. All preschoolers are introduced to the alphabet in cursive. This approach continues at the elementary level. There are a number of reasons for this.

“First, the use of cursive handwriting avoids the possibility of reversals when forming letters. It is far more difficult to confuse cursive b and d then it is to confuse the same letters in manuscript. Special education teachers emphasize the importance of teaching cursive to any student who might have any learning difficulties at all.

“Secondly, cursive is the language of adult hand-written communication. There is no need for children to learn to print and then to write in cursive. This is both an unnecessary and confusing transition.

“Lastly, children do not have trouble going back and forth between the cursive that they write and the manuscript that they read. We, as parents, often assume that there will be difficulties where there are none. Only in the United States are children taught two separate systems for writing. As Montessorians, we know this is neither necessary nor desirable.

“Penmanship is important and emphasized throughout the Junior Class. Children have handwriting sheets for practice. All ‘final’ work must be completed in an acceptable manner, one that is neat and legible with letters that are formed correctly.”
INTRODUCTION TO LANGUAGE THE READING STAGE: An excerpt from COSMIC EDUCATION by Ursula Thrush

The object box is the doorway to reading. Once the child has experienced the joy of reading by translating the symbols written by someone else, he has a tremendous urge to keep on reading. He will read anything, if he is allowed to experience it joyfully without pressure from parents or teachers.

Maria Montessori utilizes this urge to read by giving the child useful constructive reading experience which without his realizing it gives him concrete experience in the workings of grammar. It supplies him with classified information on botany and geography, and finally leads him to total reading.

Now, the function of words is made real to him through reading exercises coupled with fun activities. The knowledge of the function of words is necessary for precise expression. He needs to follow where a word stands in a sentence and what its function is in a sentence. The reading analysis exercises are interesting and stimulating activities which bring the child into contact with extracts of the best of literature and make him become aware of it. The written work is the expression of impressions which have indirectly been channeled toward him. These impressions have become the basic foundation for expressing his thoughts appropriately in the written form:

The Book Corner, the proper use of books, the public library, dictionaries, and encyclopedia are introduced as key experiences to open the doors of the vast field of literature and knowledge. So you see the basis of language development is the increase of vocabulary through experiences.

Reading Introduction: An excerpt from COSMIC EDUCATION by Ursula Thrush

Reading opens the child to everything that has happened to the universe. The individual who can read can educate himself besides, it’s just a delight to read. The images through which these words create can be transported into other times, into other worlds. Yet these days, reading has become a problem. The reason is not that they are less intelligent than they used to be but that teachers who are not profoundly prepared are being placed in charge of classrooms which overwhelm them. They do not enjoy what they’re doing. In order to teach anything, one has to consider three main points:

- The child to be taught
- The subject to be taught
- The technique which will combine the first two considerations

In teaching children, we are dealing with beings who have a tripart (three part) nature. They have body, mind, and spirit. The unity of this tripart nature has to be kept in tack. The needs of all three parts must be filled. If here is to be harmonious development, first look at he child to be taught.

You need to know the child and her needs if you want to teach her anything. You need to ask yourself, “In what stage of development is this child? What are the needs of that particular stage? Because, although the subject matter may be the same, the technique of teaching to children with different stages of development is very different indeed. Next we have to observe whether the child is at the same stage of development of her tripart nature, that is, we must assess the child.

- Is she physically coordinated?
- Are there any lost stitches or missing foundations in her self-directness or independence?
Is she happy or troubled?
Is she well adapted, at peace within herself?

Next we need to look at the subject to be taught. We need to know all its component parts and again assess whether or not the child has mastered them all. Lastly, in order to enthuse or interest some one in a subject you yourself have to be enthusiastic and interested in it. So assess yourself and your attitude. Remember, the child who is still in the absorbent state of mind absorbs your attitudes.

To enthuse children for reading, you really have to know what reading is. Reading is the ability to communicate with another person without speaking. Reading is the translation of symbols with which another has expressed her thoughts and feelings. Reading is to share the thoughts, ideas and experiences of someone who might have been dead for 2000 years and we accomplish all this with the help of twenty-six little signs.

There are several levels to reading. First comes the mechanical part which is to recognize the symbol, translate it into sounds and then to connect those sounds into a word. This is not comprehensive reading. Comprehensive reading has a second part which is interpretive reading. We need to understand the sentiment, the feeling, and the ideas the person has written about. The third point of comprehensive reading is the appreciation of the beauty of the syntax, the style, the arrangement of words, sentences, and paragraphs. We have to keep the unity of these three parts of reading in mind. The simple words of three letters which enable the child to read should be extended to longer words and phrases which makes her understand the definitions of the cultural subjects but then immediately keep in mind to read to the child and have available to him books of good literature. Indirect preparation for good language.

Where to begin

In reading readiness, we start with writing. In writing the child expresses the known quantity that is her own thought with the help of symbols. Reading is the reverse process. Here the child takes somebody else’s symbols, translates them into sounds which then are connected to make words and sense.

The child will let you know when she is ready to read. After she has been writing for a while, she will start to read her writing back, at least, try or try to read a word on a poster, signs, etc. Sometimes they just start singing, signing letters. That’s when you embark on your reading program.

- First comes the object box. It is called the doorway to reading.
- Second comes the reading tablets/cards (short vowels).
- Third comes the Phonogram booklets.
- Fourth the sight words or puzzle words.
- Five, the classified reading cards of the cultural subjects.
- Sixth, all the grammar games.
- Seventh, the sentence analysis.
A Montessori Teacher’s Thoughts on Waldorf Education

As a Montessori 3-6 and 6-9 trained teacher, I have a lot of respect for Waldorf education, even though I was drawn to (fell in love with!) Montessori at a young age (23). And as a Montessori teacher, I have recommended it for a few children (usually two students per year) who were graduating from our 3-6 classroom, because I (we) felt it was a better choice for those particular children. Their interests, or should I say passions, were not with the Montessori materials, and certainly not academics like phonics and simple math, but instead they loved arts, crafts, practical life, the outdoors, and botany.

One of the attributes I like about Waldorf is its sensitivity for the development of the WHOLE child: mind, body, and spirit. Also, there is a lot of emphasis on fine motor (like weaving, knitting, sewing), nature, cooking, playing, arts and crafts, large motor play, storytelling, poetry, songs, critical thinking, and literature.

Speaking of large motor, children really benefit from an emphasis on large motor movement activities, which aid in the function of right and left brain development: thus improving reading and writing skills between the ages of five and nine.

What I can say about child-hood development is that not all professionals agree that children as young as four, five and six should be doing academic work, that their right-brain and left-brain development is not completed, in fact, in some children, especially boys, it is delayed as compared to girls. And Waldorf takes this to heart--academic reading begins at age eight. (Read this informative blog post on [Waldorf and reading](#).)

In Montessori, there is a Sensitive Period for Reading at age five (Sensitive Period for Writing at age 4 1/2). But there is another sensitive period for reading at age eight. And Waldorf waits until the second sensitive period at age eight to start teaching children how to read. Up until that age, the language focus in Waldorf is on the SPOKEN word through storytelling, poetry, songs, and verse.

If you think your child would do better (and be happier) in a Waldorf-style environment, with arts, crafts, cooking, large motor, fine motor, songs, storytelling, and a lot less emphasis on academics until the later years... then Waldorf just might be the better choice.

~Lisa Nolan, Confessions of a Montessori Mom
How to Support Us!

We would love it if you could offer your support! You can purchase the *Smart Moves* book on Amazon, new, used, or on Kindle. Already own it? Get one for a friend or your local preschool for other parents to read. We get a small commission when you do, so thank you in advance!

We are very active on social media; host a Montessori newsletter/updates and a Montessori Facebook group! Click on the following to like, share, follow, and or join! And thank you SO MUCH!

~Lisa and Carolyn

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- The Wise Owl Factory: blog, Facebook page, Pinterest, Twitter
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- Montessori on a Budget: blog, group, Facebook page, Pinterest board
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