

**Montessori Education: A Savior for Children Suffering with Attention Deficit
Hyperactivity Disorder**

In 1939, Maria Montessori warned that any child, “who is not protected with a view to his normal formation will later avenge himself on society by means of the adult who is formed by him.”¹ Now, Montessori’s fears have come to fruition—researchers have found that Attention Deficit Hyperactivity Disorder (ADHD) is the most common diagnosis of young children by pediatricians.² In response, doctors are prescribing medications at an alarming rate, which provide temporary relief to a permanent developmental disability. If these young children’s day-to-day environments were to provide psychological insight and proper coping mechanisms from the start, ADHD children would have more successful educational careers, better executive functioning, and alleviate their day-to-day struggles with ADHD symptoms.

The Montessori, or Constructivist exemplar, helps children at a young age to not only manage their "disorder," but to also utilize the unique capabilities ADHD provides them to their advantage. ADHD is a developmental disorder that impacts children’s ability to control their own actions and responses, to concentrate and disregard distractions, to integrate sensory perceptions, and to participate acceptably during social interactions.³ Identifying, managing, and treating ADHD’s symptoms is intricate and often emotive, requiring a long-term approach to the treatment of symptoms.⁴ Symptoms of ADHD

¹ Marion O'Donnell, *Maria Montessori: A Critical Introduction to Key Themes and Debates*, 75 (2013).

² *Id.*

³ Wendy Fidler, *Attention Deficit Hyperactivity Disorder: A Practical Montessori Response*, Montessori International 20–23, 20.

⁴ *Id.*

include: (1) hyperactivity, which can be confused with the natural exuberance of young children; (2) sleep deprivation and chronic tiredness, which can result in lack of concentration and attention; and (3) lack of self-control and settled self-occupation, which can result from inadequate, inconsistent or chronic parenting (or the lack of a suitable “attachment model”).⁵ Various domains of functioning may be affected, such as cognitive, behavioral, and emotional.⁶ The Montessori exemplar, however, improves cognitive and emotional self-regulation skills in children of preschool and school age, including—and especially—children with ADHD.⁷ Further, given that the accumulation of positive and/or negative experiences at school has a large impact on children’s wellbeing and future development, it is essential that ADHD children attend a school that fosters inhibitory control, self-discipline, and independence through a curriculum that comprehensively addresses cognitive, social, and emotional development, with an individualized methodology in small groups.⁸ Essentially, children with ADHD require extra focus on developing their executive functions. Thus, children with ADHD find relief and substantive aid with the Montessori exemplar.

Children with ADHD suffer from a deficit in executive functioning, the grouping of various cognitive skills required for voluntarily and deliberately maintaining information in working memory, for managing and integrating information, and for solving conflicts

⁵ *Id.*

⁶ *Id.* at 21.

⁷ Noelia Sanchez-Perez & Carmen Gonzalez-Salinas, *School Adjustment of Pupils with ADHD: Cognitive, Emotional and Temperament Risk Factors*, *Education & Psychology I+D+I and Editorial EOS (Spain)*. 11(2), no. 30. 527-550, 530.

⁸ *Id.* at 540.

between stimuli and response options.⁹ Three pertinent executive functions are affected by ADHD.¹⁰ First, working memory, the maintaining or updating of information during a relatively short period of time, affects children’s performance in mathematics and reading. Second, inhibitory control, the activation of specific information and the inhibition of automatic responses when these are not the most adequate or incorrect, affects children’s ability to respond to certain stimuli and ignore others, follow a teacher’s previous instructions, or to resist the temptation to play instead of finishing homework.¹¹ A lack of inhibitory control has been associated with decreasing scores in mathematics, letter recognition, and phonological awareness. Third, lack of focusing and attention shifting affect children’s performance in mathematics and reading, and in daily routines, including preparation of exams and using a school agenda to write notes and check them at home.¹² Consequently, ADHD detrimentally affects children’s executive functions, which directly impacts their performance at school and home.

The Montessori exemplar helps the development of children with ADHD’s executive functions by focusing on peer tutoring, teacher’s observation of and adjustment to each individual student, and continuous, adapted challenges—all with a long trajectory in mind.¹³ Montessori school’s structured social skills training programs, i.e., peer tutoring, can improve an ADHD child’s ability to interact sensitively and appropriately,

⁹ *Id.* at 531.

¹⁰ *Id.* at 532.

¹¹ *Id.*

¹² *Id.* at 531-2.

¹³ *Id.* at 540.

thereby promoting peer-relationships.¹⁴ Additionally, the mixed age groups, lack of competition, and shared learning promote successful peer contacts.¹⁵ This peer interaction also allows children to make the choice to work alone or collaboratively, whichever suits their learning method at that moment.¹⁶ Montessori teachers maintain a calm and structured atmosphere, define his or her expectations for children's behavior, and provide plenty of positive reinforcement; consequently, children respond with better self-control, improved performance and appropriate behavior.¹⁷ Further, a Montessori teacher will not only maintain the child's structured environment, but will also continuously adapt and adjust to the child's needs. ADHD children's actions can vary vastly from day-to-day (i.e., one day she may be well-behaved, and the next unruly and disruptive) requiring a consistent and structured response and plan of action from the teacher. Once the child masters this response, she will be able to apply her learning in different contexts as she develops confidence and greater self-esteem.¹⁸

Additionally, Montessori schools promote greater inclusion for parents, which is crucial for ADHD children. Many schools provide frequent parent-teacher conferences, open events, or other opportunities that allow parents to see how their children develop self-control and calmness through shared daily routines.¹⁹ Parents may even come to their child's class and watch, or review their daily progress. Consistency is key for ADHD

¹⁴ Fidler, *supra* at 22.

¹⁵ *Id.*

¹⁶ Angeline S. Lillard, *Playful Learning and Montessori Education*, 5 *American Journal of Play* 157–186, 166.

¹⁷ *Id.* at 21.

¹⁸ *Id.*

¹⁹ *Id.*

children, so children's teachers and parents working synonymously will provide a consistent approach at both home and school.

The learning that occurs in Montessori schools emphasizes the constructivist approach—it embeds freedom within structure and structure within freedom, calling for their behavior to be constructive for her development—while mirroring playful learning.²⁰ This unique dynamic helps ADHD children develop their executive functions while learning how to manage the symptoms of ADHD. First, the use of various objects in the classroom enhance learning by ensuring manual involvement, often through manipulation.²¹ Learning is enhanced when it is embodied across modalities, and the active (versus passive) based learning fosters cognitive development, a crucial executive function.²² Additionally, many of the objects utilized in Montessori classrooms are self-correcting, which allows children to make constructive mistakes, while providing them the tools to understand and correct their mistake completely independently.²³ This process helps ADHD children not feel overwhelmed or frustrated when learning, letting them learn at their own pace, which will vary between being unusually quick (when they are hyper-focused) and exceptionally slower than other students (when they are inattentive or having a hard time focusing).

Second, Montessori lessons are interactive, as they involve individuals or groups of two to six children, based upon age and how many in a class are ready for a certain

²⁰ Lillard, *supra* at 161.

²¹ *Id.* at 162.

²² *Id.* at 163

²³ *The Montessori Method* (London), Teachers TV/UK Department of Education, 2010.

lesson.²⁴ The teacher demonstrates how to use the materials at the beginning of the lesson, then the children take turns. The teacher will guide the child to utilize their hands and mouth while learning (i.e., showing a child a sandpaper letter, and having him trace the letter while also sounding it out-loud).²⁵ This interactive learning especially benefits ADHD children, who have difficulty focusing when taught with only their eyes and ears. With interactive learning, they learn how to use all of their senses to properly focus on one topic at a time. The interaction between themselves, the teachers, their peers, and the learning materials provides an outlet for any restless energy that may have otherwise stunted their learning in a conventional environment.

Third, unlike conventional classrooms where teachers choose activities for children, free choice exists in Montessori classrooms at a macrolevel.²⁶ Most often, the children choose what they work on. Children freely choose what reality-based play to work on, such as ironing napkins, cutting food and offering it around the classroom, washing a table, or taking apart and reassembling a puzzle.²⁷ For lessons, freedom is essential in Montessori environments, so that children may choose among materials and experiences offered.²⁸ Thus, the ADHD child's choice in selecting that task ensures his fixed attention, thereby strengthening his ability to focus and self-discipline.²⁹ This

²⁴ *Id.* at 165.

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.* at 166.

²⁸ Kaufman, Kaufman and Nelson, *Learning Together: The Law, Policy, Economics, Pedagogy, and Neuroscience of Early Childhood Education* (Rowman & Littlefield 2015), 113.

²⁹ *Id.*

individualistic and self-directed learning helps ADHD children with their inattention and accountability, a crucial executive function. Moreover, the best learning takes place when individuals choose to study what interests them³⁰, as evidenced by ADHD children's ability to hyper-focus when they so desire. Thus, the freedom provided by Montessori learning suits the learning process of ADHD children, giving them the choice of where to direct their focus. This results in learning through self-motivation.

Fourth, the lack of extrinsic rewards encourages learning for its own sake.³¹ The reward for learning is to learn more, as Maria Montessori noticed for herself. When she offered nice toys to the children to play with after successfully reading words, they put them aside, instead requesting more words to read.³² Montessori then realized that under conditions of free choice, learning was its own reward. Part of what makes play inherently fun lies in the ability to choose the activity. Consequently, when children choose what and when they learn, the process of learning becomes rewarding, versus a gold star or a grade. ADHD children particularly benefit from this model because they are unmotivated by punishment or reward.³³

Finally, all of these elements within the Montessori classroom create a sense of "flow," where a well-functioning classroom consists of deeply engaged children enjoying themselves, even though they are concentrating deeply on their individual tasks.³⁴ Children in Montessori programs seem to like school, even through middle school,

³⁰ Lillard, *supra* at 166.

³¹ *Id.* at 167.

³² *Id.*

³³ Fidler, *supra* at 21.

³⁴ Lillard, *supra* at 168.

compared to conventionally schooled children that often strongly dislike classwork.³⁵

Teachers maintain “flow” by not interrupting a very focused child—even if the teacher does not understand what the child is learning, the child is still learning in a method that is suitable for her.³⁶ Setting weekly achievements, where all ages work together and learn from one another, dividing their time as they individually see fit helps the “flow,” as well.³⁷

These elements of Montessori education ultimately help ADHD children by complimenting, and hopefully eliminating the necessity for, medication. ADHD medication treatment is purely a form of symptomatic relief.³⁸ The Montessori classroom lets a child concentrate on his own choice of practical life activities, encourages concentration, independence, self-control and a better feeling of self-worth.³⁹ Thus, the multi-modal treatment of ADHD through long-term symptomatic treatment using sensory and developmental approaches results in a complete package of care to best help an ADHD child.⁴⁰ The practical life materials provided by Montessori education help ADHD children develop daily life skills that will help them beyond the classroom, and with continuous growth and adaptation, may help the child to not rely upon medication to supplement their treatment of ADHD.

³⁵ *Id.*

³⁶ *The Montessori Method, supra.*

³⁷ *Id.*

³⁸ Fidler, *supra* at 22.

³⁹ *Id.*

⁴⁰ *Id.*

Montessori education strives to provide a non-competitive, mistake-welcoming, self-correcting, structured, and safe atmosphere for its students. The teachers focus on the students as individuals, and all of the classroom's working parts—students, teacher, objects, nature—as a whole. Children learn independence, while discovering their role in the collective, and discern how to balance both. Thus, Montessori education teaches essential executive functions, which conventional classrooms fail to do.

Specifically, children with ADHD struggle with their working memory, inhibitory control, and lack of focusing and attention shifting—all results of executive functioning deficiencies. Conventional education does nothing to treat these symptoms; rather, young children are being prescribed medications, which only temporarily alleviate surface-level symptoms. A Montessori education, however, aims to help ADHD children understand their developmental disability to a point where they can permanently ease their daily symptoms through self-correction and self-understanding. Consequently, Montessori education far surpasses conventional learning for ADHD children, who require even more help in developing their executive functions. By improving those executive functions, ADHD children will have more success within the classroom in essential topics (i.e., mathematics, reading, and language) and outside the classroom as functioning members of a collective society.