



Media Briefing

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What is Montessori Education?

MONTESSORI THEORY

Montessori education is driven by an ambitious aim: To aid the child's development into a complete adult human being, comfortable with himself, with his society and with humanity as a whole. Whereas the traditional approach to education, which prevails today, remains focused on the transmission of prescribed blocks of knowledge, the Montessori approach is focused on giving support to the natural development of the human being. This is done with the understanding that the fully developed human being is then better disposed to learning the things that he needs to become an integrated and contributing member of society. The substance of the human being - the development of character and integration of the whole personality, are traditionally approached as values that must be *instilled* into the child. The result is children who are bored or stressed and a society with increasing levels of mental illness.

Today, as it was a century ago, education is rightly seen as a means to tackle poverty, inequality, anti-social behaviour and other ills of society. From before birth it is the child that guides its own development. The fundamental problem with traditional education is the lack of faith in the child to continue to guide his own development - and to guide the educators in supporting this task.

Montessori education begins with the understanding that the role of the adult is to help the unfolding of the child's inborn developmental powers. The child, from the earliest moments of life, is possessed with great constructive energies that guide the formation of his mind and the coordination of his body. The Montessori approach was developed without preconceived ideas as to how best to aid the child in his journey to adulthood. Instead the ideas were based on the observation of children in diverse cultures and in many countries. Key theories emerged from these observations:

1. That there are four key developmental planes in the journey to adulthood – 0-6 years old, 6-12 yrs, 12-18 yrs and 18-24 yrs. Each of these planes has its own goals; in the first the development of the self as an individual being, in the second the development of the social being, in the third the birth of the adult and finding one's sense of self, before consolidating the mature personality and becoming a specialised explorer in the fourth plane. The complete development of the adult human being requires the specific needs of each of these periods to be satisfied.
2. Within each of these planes the child or adolescent has specific 'sensitivities' or 'windows of opportunities' to acquire a particular human trait, for example a sensitivity that guides the child to the acquisition of its language in the first plane (0-6 yrs), or that guides the child to the development of a moral 'compass' in the second plane (6-12 yrs).

3. In addition to these age-specific sensitivities, human beings have a number of behavioural tendencies that give each child the ability to adapt to its place and time. These human traits, for example, to explore, order, manipulate, imagine, repeat, work, and communicate have been crucial to human evolution and are active within the child.

The following sections explain how Montessori education responds to this understanding of child development:

MONTESSORI PRACTICE

A prepared environment

Montessori education seeks to provide the child with an environment ideally suited to his stage of development which allows him to respond to the inner call of specific 'sensitivities', and the freedom to act in accordance with the natural behavioural tendencies. This provides a secure and permanent foundation on which to base education, if education is viewed as a method to fulfil the optimum potential of the child in every facet of his emerging personality.

The child needs a place designed to meet these innate sensitivities and tendencies. This place, or 'prepared environment' is different for each developmental plane, but guided by the same principles. The prepared environment and the role of the teacher in the classroom distinguish Montessori from other educational approaches. For example, independent activity constitutes about 80% of the work while teacher-directed activity accounts for the remaining 20%. The reverse percentages are generally true for traditional education. The special environments enable children to perform various tasks which induce thinking about relationships. The logical, sequential nature of the environment provides orderly structures that guide discovery: Theorems are discovered, not presented; spelling rules are derived through recognition of patterns, not merely memorised. Every aspect of the curriculum involves creative invention and careful, thoughtful analysis. In viewing learning outcomes at each Montessori level, it must be emphasised that why and how students arrive at what they know is just as important as what they know.

Montessori materials

The most widespread examples are the Montessori environments prepared for 3 -6 year olds. At this formative age the child is consolidating the formation of the self as an individual being that began at birth. The environment is set up as a bridge between the home and the wider world. Montessori called this place a *Casa dei Bambini* or *Children's House*. The first materials the child encounters in this setting are the 'practical life' activities. These are everyday activities, familiar to the child from his home, such as pouring, scrubbing a table, polishing or buttoning. Whilst helping the child's independence by acquiring a particular skill, the main purpose of these activities is to help the child develop his ability to concentrate and to coordinate his movements.

The other areas of the curriculum for the children of this age are the 'sensorial' materials, mathematics, language and culture. The sensorial materials respond to the way the child learns at this age – through the senses rather than the intellect. There are materials for the refinement of each sense, with each activity isolating one particular quality, for example colour, size, loudness, taste or weight. For example, the material known as the pink tower is made up of ten pink cubes of varying sizes. The 3 year-old child constructs a tower with the largest cube on the bottom and the smallest on top. This material isolates the concept of size. The cubes are all the same colour and texture; the only difference is their size. Other materials isolate different concepts: colour tablets for colour, geometry materials for form, and so on.

As the child's exploration continues, the materials interrelate and build upon each other. Later, in the primary years, new aspects of some of the materials unfold. When studying volume, for instance, the child may return to the pink tower and discover that its cubes progress

incrementally from one cubic centimetre to one cubic decimetre. At the pre-school age when the child is bombarded by sensory information, these materials help the child to order and make sense of his world and heighten his perception and wonder of it.

The ability to count or calculate, to write or read are by-products of the child's time in this prepared environment, not the goal. Through working with the different sensorial materials the child has refined his discrimination of size to the point where he wants to know *how much* bigger one object is from another. The maths materials flow naturally from here. When a child reaches this point, he needs to be introduced to the concept of numbers to sustain their interest.

The same applies with language. The subtle preparation the child has been given in this environment – a rich diet of songs, stories, poems, or the control over the movement of the hand through polishing, allows 4 and 5 year olds to effortlessly start to write and read. Montessori education has been using an effective system of synthetic phonics for 100 years. At the centre of this system are a set of 'sandpaper letters' individual boards with the primary symbol for each of the 26 letters as well as a number of the diagraphs (eg 'sh' or 'oa') sounds in the English language. 3 year-old children see and feel these symbols, and make the corresponding sound, absorbing the combination of sound and symbol through three different senses.

Finally, the cultural materials bring to the child his world and the animals, plants and people within it. Like everything offered to the child at this age, the materials are sensory-based and are introduced to the child in an orderly way; first the world, then the plants and animals in it; first animals, then mammals, birds, amphibians, reptiles and fish; first the concrete – a real plant, then the more abstract pictures or reading that may accompany it.

Materials that aid independence

The materials themselves invite activity. There are bright arrays of solid geometric forms, knobbed puzzle maps, coloured beads, and various specialised rods and blocks. All the materials in a Montessori environment are designed for maximum independence in the child: Everything, including a dustpan and brush, is child sized; activities are laid out in an orderly way on easily accessible open shelves; and the design of the materials make it easy for the child to identify, and gradually correct, any error. This last point all but eliminates the need for correction by a teacher, a feature that has become a mainstay of traditional education. Instead of an external force judging them, the child instead relies on the impersonal judgement that comes from their senses. The guide in the material may be mechanical (all the pieces only fit together one way), it may be visual (the eye checking groups of objects sorted by touch), or there may be an answer sheet. Either way, by coming to rely on his own self-appraisal, the child develops a 'friendly feeling' towards error, setting him on a path to self-improvement.

Mixed age groupings

In the family, in the workplace and society as a whole we are in constant interaction with those that are older or younger. Children in traditional schools are the only members of society segregated by age. A mixed-age environment is an important feature of Montessori education. Since the children need different environments at different stages in their development, classes are mixed within bands, for example, 0-3 yrs, 3-6 yrs, 6-12 yrs, or 12-15 yrs. The young child in each band is surrounded by role models a little more developed than himself. Similarly, the older child finds herself in a position of responsibility, and, by showing younger children what he knows, affirms to herself, more surely than any test, the extent of her learning. Cooperation replaces competition as the driving force within these mini-societies. The auto-education facilitated by the prepared environment means that each child is learning and developing at his own pace.

Freedom and discipline

Just as important as the physical environment and its contents, is the functioning of the environment. The Montessori environment gives the children the tools they need, but they

must also have the freedom to use them and to manifest their tendencies to repeat, to explore, or manipulate.

Each child is given the freedom of choice. The child's interaction with the environment is most productive in terms of the individual's development when it is self-chosen and founded on individual interest. From the moment the child enters the class in the morning they are free to choose their activities for themselves. One will choose to start the day with a drink and a chat before washing up some cups. He may then choose to sit and do nothing – quietly watching his friends, before choosing to join a singing group. Another may arrive and immediately start to trace some of the sandpaper letters with his finger, and then write on a chalkboard. This is 'Auto-Education' – the child has the freedom to respond to the teacher within him, and has access to materials in the environment that can satisfy each developmental need.

Each child is given the freedom of time. He is free to work with an activity for as long as he chooses, free to repeat it as many times as he needs, or simply take his time. A 4 year-old child might spend 1 ½ hours washing some 50 or more small cloths that have been used during the morning. He is left undisturbed and finishes when the force that compelled her to concentrate for that time is satisfied. Long periods of concentration of this type are frequently observed in Montessori environments in children as young as 3 years old.

Paradoxically, it is this freedom that leads to discipline. The traditional approach to discipline holds that children are inherently disorderly, and that their wilfulness and impulses must be inhibited by an external discipline. The widespread assumption is that children need rewards (such as gold stars) or punishments in order to behave appropriately. In contemporary education the balance has shifted from punishment to rewards but the problem remains the same. If the external motive is withdrawn there is only a weak will or moral compass within the person to direct their intentions and actions. The desire to learn or cooperate within society is based more on the notion of 'I should' rather than 'I want to'.

Montessori education aids the development of the child's will. Through constant decision making (choices) the child's ability to listen to his interests and impulses is developed. But the environment also contains within it limits, both natural and social, that give the child constant practice in the inhibition of those impulses. In the prepared environment there is only one of each set of materials – one easel for painting, for example. If a child has an impulse to paint, and another child is painting there is a natural limit to their impulse. Similarly an activity, freely chosen, is only complete when it has been returned to its shelf, ready for the next person to use; the only limit to individual freedom being the needs of the group as a whole.

Montessori education has a special term for the process whereby characteristics including initiative, self-discipline, concentration, independence, a love of purposeful activity, and compassion become manifest in the child - 'normalisation'. This does not refer to a standardisation or a process of being forced to conform, but describes a unique process in child development. She used this term to indicate her belief that these characteristics are the normal characteristics of childhood. She believed that the characteristics that we normally associate with childhood – such as capriciousness, selfishness, laziness and inability to concentrate only appear when a child's natural development is being thwarted. When children are allowed freedom in an environment suited to their needs, they blossom. After a period of intense concentration, working with materials that fully engage their interest, children appear to be refreshed and contented. Through continued concentrated activity of their own choice, children grow in inner discipline and peace. This 'normalisation' is the single most important result of Montessori education.

A GUIDE TO MONTESSORI PROGRAMS FOR DIFFERENT AGES

Montessori education builds on the continuing self-construction of the child—daily, weekly, yearly—for the duration of the program. Although Montessori schools are divided into multi-age classrooms—parent infant (ages 0 to 3), pre-school (ages 3 to 6), primary (ages 6 to 12), and senior school (12-18)—the prepared environments introduce an uninterrupted series of learning passages, a continuum. The prepared environments described below will each reflect the natural learning characteristics of the child at each stage of development. Montessori education for children aged 0-12 years is widespread around the world. More recently there has been a concerted effort to develop the senior school programme for 12-18 year olds.

The Parent-Infant Class (0-3 years)

The Montessori infant-toddler program has several components that offer a wide variety of options and opportunities for involvement by parents. The most widely found is the Parent-Infant Class. The Parent-Infant Class provides an environment in which parents and children interact alongside a Montessori-prepared adult who uses the environment to facilitate their interaction. Caregivers are taught how to observe what their babies do in order to know what to offer them. Once walking the children engage in the practical activities of every day life such as pegging, folding, preparing a snack, washing or sweeping and a language area including miniature objects, language nomenclature cards and books, as well as art, singing and other musical experiences.

Children's House (3-6 years)

The Montessori pre-school classroom is a 'living room' for children. Children choose their activities from among the self-correcting materials displayed on open shelves that allow the child to learn through their senses. The pre-school environment unifies the psycho-social, physical, and academic functioning of the child. Its important task is to provide children with an early and general foundation that includes a positive attitude toward school, inner security and a sense of order, pride in the physical environment, abiding curiosity, a habit of concentration, habits of initiative and persistence, the ability to make decisions, self-discipline, and a sense of responsibility to other members of the class, school, and community. This foundation will enable them to acquire more specialised knowledge and skills throughout their school career. The activities in the Children's House are described in more detail in the section 'Montessori materials' above.

The Montessori Primary Program (6-12 years)

As in the pre-school, the Montessori materials are a means to an end. They are intended to evoke the imagination, to aid abstraction, to generate a world-view about the human task and purpose. The child works within a philosophical system asking questions about the origins of the universe, the nature of life, people and their differences, and so on. On a factual basis, interdisciplinary studies combine the basics of reading, writing and arithmetic with geological, biological, and anthropological science in the study of natural history and world ecology.

The program is made up of connective narratives that provide an inspiring overview of the universe and the place of humans within it. These narratives or 'Great Lessons' span the history of the universe from the origin of the solar system, earth, and life forms to the emergence of human cultures and the rise of civilizations. Aided by impressionistic charts, timelines and, in some cases, scientific experiments, the child's study of detail in reference to the 'Great Lessons' leads to awe and respect for the totality of knowledge.

Studies are integrated not only in terms of subject matter but in terms of moral learning as well, resulting in appreciation and respect for life, moral empathy, and a fundamental belief in progress, the contribution of the individual, the universality of the human condition, and the meaning of true justice. There is an emphasis on research and in-depth study using primary and secondary sources (no textbooks or worksheets) as well as other materials. This involves the children planning their own trips to 'go out' to make use of community resources beyond the four walls of the classroom.

The Montessori-trained adults leading the program are 'enlightened generalists', guides who are able to integrate the teaching of all subjects, not as isolated disciplines, but as part of a whole intellectual tradition.

Secondary Education (12-15 years)

Secondary Montessori education is not available in the UK at present. Where it is practised, for example in the USA, , the adolescent programme is centred on real economic participation in society. Until this age the child's has experienced only the mediated societies both the 'Children's House' (3-6 years) and primary settings (6-12), but once the child reaches adolescence it is important for his sense of self, and sense of place in the world, to contribute to his community. Learning is based around a project – a farm or other small business – which gives the adolescent the opportunity to explore how society really works. Mental and physical work are linked and the areas of cultural knowledge – traditionally separated into abstract 'subjects' - are integrated and linked to real world experiences.

The adolescent is undergoing profound physical and emotional changes and needs to be nurtured at this vulnerable time. Within the Montessori programme he is given the time and space to understand the changes he is experiencing without the pressure of testing and exams. These can come in the senior secondary years (16-19) when the individual is more secure in himself.

The following media briefings are available:

- **A biography of Dr Maria Montessori**
- **Timeline**
- **What is Montessori Education**